NETAJI SUBHAS OPEN UNIVERSITY

SELF LEARNING MATERIAL

POST GRADUATE DEGREE PROGRAMME

PGEL 19A

M.A IN ENGLISH LANGUAGE TEACHING

New Syllabus

PGEL-19A Project and ELT

ELECTIVE PAPER

PREFACE

In the curricular structure introduced by this University for students of Post-Graduate degree programme, the opportunity to pursue Post-Graduate course in a subject is introduced by this University is equally available to all learners. Instead of being guided by any presumption about ability level, it would perhaps stand to reason if receptivity of a learner is judged in the course of the learning process. That would be entirely in keeping with the objectives of open education which does not believe in artificial differentiation. I am happy to note that the university has been recently accredited by National Assesment and Accreditation Council of India (NAAC) with grade "A".

Keeping this in view, study materials of the Post-Graduate level in different subjects are being prepared on the basis of a well laid-out syllabus. The course structure combines the best elements in the approved syllabi of Central and State Universities in respective subjects. It has been so designed as to be upgradable with the addition of new information as well as results of fresh thinking and analysis.

The accepted methodology of distance education has been followed in the preparation of these study materials. Co-operation in every form of experienced scholars is indispensable for a work of this kind. We, therefore, owe an enormous debt of gratitude to everyone whose tireless efforts went into the writing, editing, and devising of a proper lay-out of the materials. Practically speaking, their role amounts to an involvement in 'invisible teaching'. For, whoever makes use of these study materials would virtually derive the benefit of learning under their collective care without each being seen by the other.

The more a learner would seriously pursue these study materials the easier it will be for him or her to reach out to larger horizons of a subject. Care has also been taken to make the language lucid and presentation attractive so that they may be rated as quality self-learning materials. If anything remains still obscure or difficult to follow, arrangements are there to come to terms with them through the counselling sessions regularly available at the network of study centres set up by the, University.

Needless to add, a great deal of these efforts are still experimental—in fact, pioneering in certain areas. Naturally, there is every possibility of some lapse or deficiency here and there. However, these do admit of rectification and further improvement in due course. On the whole, therefore, these study materials are expected to evoke wider appreciation the more they receive serious attention of all concerned.

Chandan Basu
Vice-Chancellor

Netaji Subhas Open University

Post Graduate Degree Programme

Choice Based Credit System (CBCS)

Subject : M.A in English Language Teaching

Course Code : PGEL-19A (Elective Course)

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Module No	Unit No	Course Content Writers	Course Editor
1	1-4	**Prof Jayshree Mohanraj** *Retd. Professor EFLU, Hyderabad*	**Dr S Mohanraj** *Professor of ELT, NSOU* **Dr Shyamal Das** *Professor* *Department of English* *Tripura University*
2	5-8	**Prof S Mohanraj** *Professor of ELT, NSOU*	
3	9-12	**Dr Atanu Saha** *Assistant Professor* *School of Languages and Linguistics, Jadavpur University*	
4	13- 16	**Dr Atanu Saha** *Assistant Professor* *School of Languages and Linguistics, Jadavpur University*	

Netaji Subhas
Open University

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Module – I

Unit–1 : Introduction to Project Work

Structure

1.1 Objectives

The unit enables the learners to

- understand what is Project work
- appreciatethe importance and relevance of project work in the learning context
- identify suitable topics for project work
- choose or select the various types of Project work one can undertake
- identify the various resources that can be tapped
- gatherbasic informationrequired forplanning ofProject work

1.2 Introduction

In our schools English is taught as a 'subject' rather than as a language and as a language that is used in life. All the English that is learnt is mostly confined to the classroom. Hence even after 7-8 years of learning learners are not confident enough to use the language when required. Moreover, if the language learnt is confined to the textbook, learners would lack interest and involvement in the learning process.

Under such environment,Projectwork incorporated in the curriculum provides adequate support to the entire environment of language teaching and learning.

Language is learnt to be used in authentic situations whenever need arises. Project work offers an effective means of involving learners in such learning processes. It gives them authentic learning experience where language is used for genuine communication purposes. It is learner-centred and is used to achieve the end-product. It engages learners meaningfully in both language and content-learning. Through content based instruction learners develop language skills and also develop knowledge about the world. Project work achieves this by taking the classroom experience to the outside world and also feeds the knowledge acquired in the world outside into the classroom. Moreover the activity enhances the self-confidence of the learners as they work on a topic they choose. Since they have the freedom to choose a topic of their interest the motivation is intrinsic rather than extrinsic. Collaborative work involved in the project work encourages peer learning. As there is a variety of activities involved in carrying out the project the interest in learning gets triggered off and is sustained. Sometimes it even gives a direction to the learners to undertake deeper study in a particular area of discipline. You will learn more about the various advantages of project work in the subsequent sections.You should note that while project work can be undertaken in any discipline, but here we shall discussproject work that is undertaken in a language classroom.

1.3 What is project work? Characteristics

Project work can be executed at any level of learning. It can be an individual project or collaborative project. Individual projects are undertaken by each learner. The choice of topic, planning, execution and so on is the responsibility of the learner. Collaborative projects are group projects where peers plan together, divide the responsibilities, execute them and then consult each other and come together in meeting the deadline and finally in owning the final productionfor both its strengths and weaknesses. A lot of team work skills are developed in group projects.

It can be a classroom project or outside the class project. As is obvious, projects which are classroom based need specific classroom time whereas the other projects may demand the learners' time beyond the classroom hours.Itmay not always result in a substantial product like a document. It could sometimes result in performance.The emphasis may be in the process and not necessarily in the product.

We can say that the general characteristics of project work are :

i. learner interest as a starting point

ii. multi-skill sequence of activities that require active learner involvement in content learning, language use, and cognitive skills development

iii. development of a demonstrable product that addresses the question, issue problem under consideration

iv. formation of a community of inquiry that engages in negotiation, collaboration and cooperation

v. learner autonomy and responsibility, with teacher support and guidance

vi. authenticity of input, task, experience.

(based on StollerFredricka L. handout in Salzburg Seminar 1997)

1.4 How does project work help learners?

Project work gives the learners a holistic experience of learning. The primary objective of project work is to act as a link between the classroom and the outside world as it provides opportunities for experiential learning. Therefore it makes language learning more meaningful.

Project work gains relevance in that, it allows the learners to practice all the four skills in an integrated manner and presents language in the real-life situations.It develops study skills and people-skills which are the two essential life-skills. If properly executed, a project reinforces and supplements classroom learningand creates interest in a specific field of discipline. Project work as such confirms the tenets of learner-centred process of teaching/learning. It provides opportunities for learner involvement and learner responsibility in the process of learning.

It helps the learners in developing

- communication skills (when interviewing and reporting back)
- research skills(using library resources)
- social skills(when discussing, collaborating, meeting people)

The flowchart presented in Fried-Booth D.(figure-1) gives a bird's eye view of the multi-tasking and skills that could be developed through project work.

A project flowchart–multi-tasking and related skills

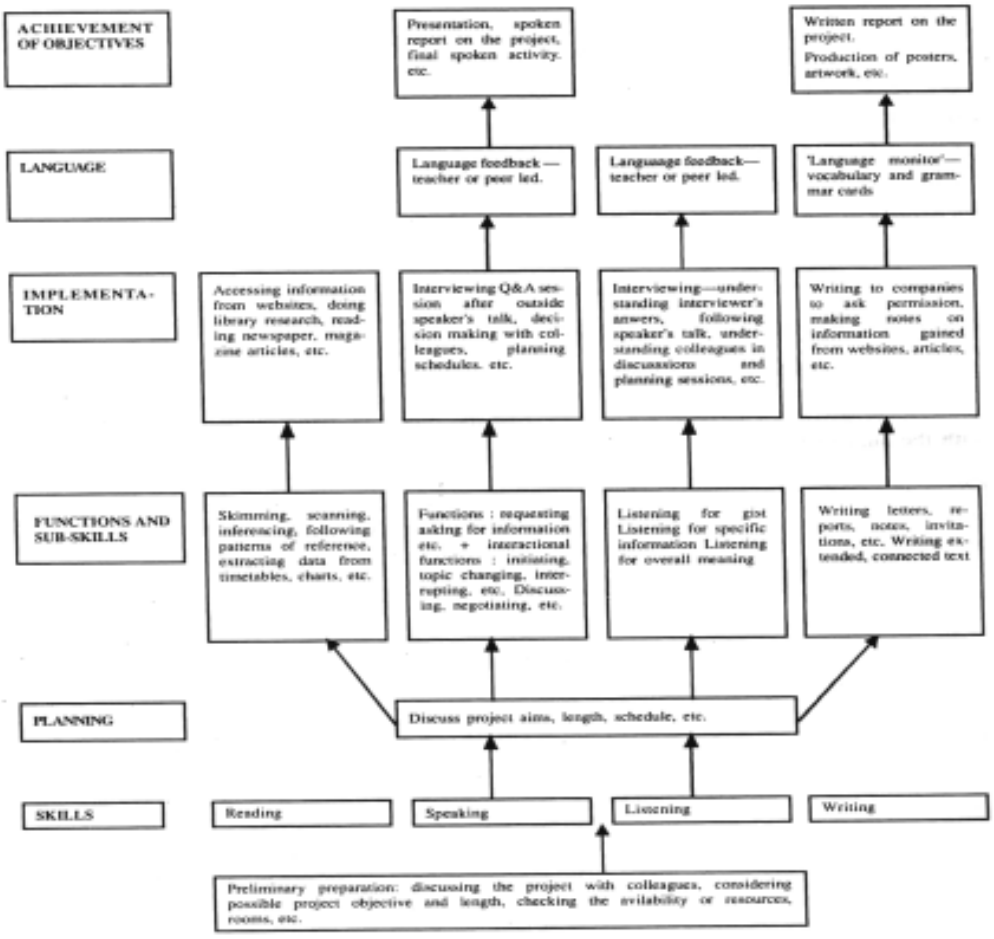

Figure 1 - Fried-Booth Diana L. (2002)

1.5. How does project work help teachers?

We have said earlier that project work can be undertaken by any learner at any level, even in advanced learning in professional fields. Teacher's role is crucial in motivating and monitoring in all stages of the learners' project right from identifying topics, planning, execution and presentation. Conducting project work and monitoring the learners or undertaking projects for themselves would definitely help teachers in various ways. The benefits offorteachers undertaking Project work are listed here.

i. It makes them more professional in their attitude:
   - develops their knowledge in the subject
   - sharpens their attitude to work
   - develops self-monitoring skills
   - makes them more aware of the problems of learning
   - promotes in them cooperative learning

ii. It provides a sense of achievement
   - motivates them to take a keener interest in the subject
   - sustains their interest in the subject and work
   - providesbetter job satisfaction
   - promotes healthy competition

iii. The experiential knowledge acts as a spring-board for the betterment of teaching competence
   - Makes them anticipate problems in learning
   - Allows them to take a more sympathetic attitude to the learners
   - Helps in preparing learners to meet the demands of the world.

Projectwork is effective in teacher-training courses. For example in a course on materials development a trainee generated handbook comprising generic exercises for language-skills practice at different levels of English proficiency can be a useful and practical project that can be used as a teacher-reference tool later.

Once the teachers do a project work themselves and experience the demands of the activity they would certainly be better guides and monitors to their learners. They will be able to anticipate the problems the learners might encounter and offer essential support and guidance.

For teachers who would like to use Project Work as a means of developing language as well as content knowledge in their learners the book titled Project Work by Fried-BoothDiana L. (2002)under the series of Resource Books for Teachers edited by Alan Maley, published by Oxford can be an excellent primary source material. The book presents 34 projects. It presents each project in a systematic manner with details of the topic, level of learners, general and language aims, teacher preparation, learner preparation, resources and so on. The procedure can be used as a basic guide and teachers can evolve their own topics suitable for their learners.

1.6 Types of project work

Project work could be classified on the basis of :

i. its nature
ii. Data collection and technique
iii. Information report
iv. based on the timeframe .

Let us look at them one by one.

i. Based on the Nature we can identify Project work as
   a. Group Project
   b. Individual project

A group project is the collective responsibility of a group of learners in all its stages right from choosing the topic, planning, data collection, writing the drafts and presentation. It encourages collaboration and cooperative learning, and promotes team spirit. It also identifies leadership qualities in the learners. These skills will be useful in their future career.

Individual projects help learners develop responsibility towards the learning process, and enhances self-confidence in them.

Another way of classifying project work based on its nature could be :

c. **Structured Project :** Projects which are specified and defined in terms of topic, materials and methodology by the teacher.
d. **Unstructured Project :** Projects that are defined in terms of topic, materials and methodology by the students
e. **Semi-structured Project :** Projects that are determined in part by the teacher and in part by the students.
f. **Real-world project :** Projects that are designed to solve real problems.
g. **Simulated Project :** Projects that simulate real-world problems.

ii. Based on the method of data collection we can classify projectwork as :
   a. **Text-basedProject :** Projects which lead to encounters with texts rather than people.
   b. **Correspondence Project :** Projects that involve communication between L2 learners and target language speakers.

c. **Encounter Project :** Projects that result in face-to-face contact with native speakers or competent L2 speakers. In some situations the contact could be in L1 but in such cases provision to translate the conversation in L2 should be a part of the activity.

iii. Based on the Information to be Reported or the end product we can classify project work as the following :

a. **Production Project :** Projects that involve producing a newspaper, brochure, video, radio Programme, an exhibition, etc.

b. **Performance Project :** Projects that involve planning an event or a play.

c. **Organisational Project :** Projects that involve organizing a club.

iv. Based on the timeframe given we can classify projects as :

a. **Long term Project :** Any project which needs a lot of data to be collected and executed over a period of time. They may involve work outside the classroom.

b. **Short term project :** Projects that can be completed within a day or week. Mostly they are completed during classroom time.

1.7 Stages in Project work

As said earlier, project work could become a means to promote language as well as content. Basically there are six stages in a Project work :

i. Planning
ii. Execution
iii. Consolidation
iv. Review
v. Editing
vi. Reporting.

These six stages involve ten steps as clearly illustrated by FredrickaStoller.(2003)

As shown in figure2, the steps, take the learners gradually to complete the work with the help of the teacher. The learner or a group of learners have to agree on a theme of the project and then choose a specific topic. They should understand what would be the outcome or final product, i.e., whether it will be a report or performance or an exhibition. Then they structure the project carefully to achieve the end product.

The teacher's role is crucial as she has to prepare them for the language demands of the next step when they will have to gather information. She will have to equip them with the required vocabulary and sentence structures. The information gathered will then be compiled and analysed. Finally the Project work is presented and evaluated by the teacher or any other competent authority. Intermittently as it is seen in the Figure provided the teacher steps in to help the learners with the required language.

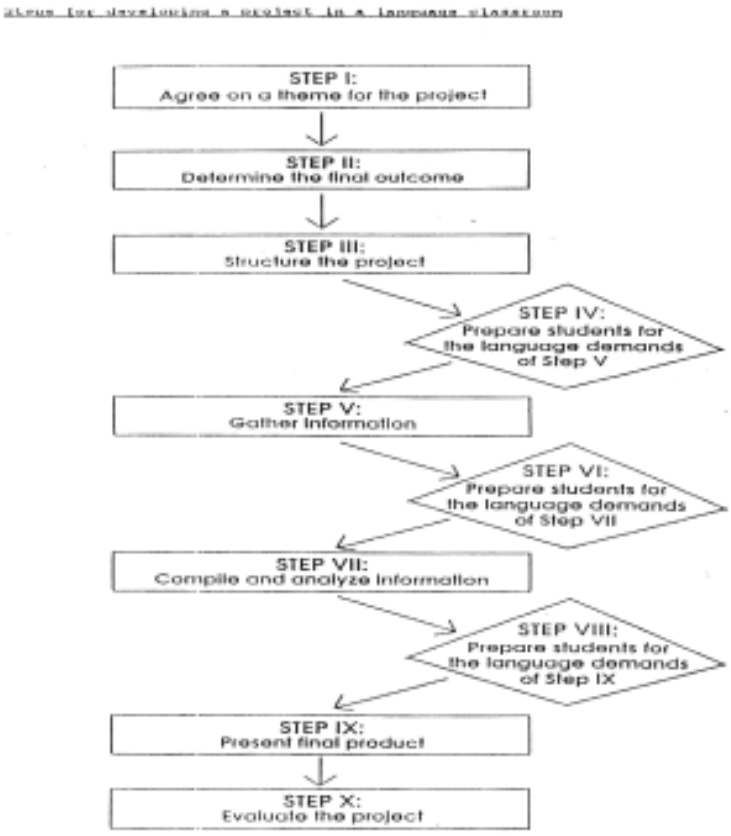

Figure 2 Developing a Project in a Language Classroom, Stoller Fredricka L. 2003)

1.8 Teacher's Role

As seen in the previous section and also as mentioned earlier the role of teacher in Project work of the learners is very crucial. While the activity inculcates autonomy of the learners in the learning process it does not cancel the role of the teachers in the process. On the other hand it emphasises the role of teachers who does a lot of

hand-holding, monitoring and directing the learners to think independently. While the learners get immersed in learning the teachers steps aside and guides them.

Teacher could help forming groups as she would be aware of the strengths and weaknesses of the learners. The group formed should be balanced in order to facilitate peer learning. If it is individual activity the teacher could help the learner identify the topic as per the learner's interest. At every stage of the Project work, it is ideal to have intermittent sessions of consultation with the teacher as illustrated in figure 2.On the whole the teacher should hand-hold the learner when necessary and guide the learner throughout to meet the target date successfully up to the stage of presentation of the work. All this involves a lot of teacher preparation as listed here. The teacher

- provides relevant language input inside the classroom(if possible prepare a vocabulary monitor to be kept in the classroom)
- introduces the learner to the concept of Project work
- collects preliminary information for the project like preparing and providing resources list. For example, for a project on local restaurants, list restaurants, services offered, finding out affordability etc.
- contacts the organization, seek their cooperation
- arranges transport for students' visits
- collects materials required pitched at a suitable level(brochures, relevant magazines, journals etc. also materials like chart paper, pencils, sketch pens, display boards etc.)
- helps in planning
- monitors the work of the learners in data collection
- helps and offers guidance in organizing data
- helps in finalising the presentation

Please note that the teacher should not indulge in spoon feeding but help in gradually making the learners independent. As the learners advance to higher classes, the teacher may guide them in all the above preparations rather than doing all those herself. She becomes a facilitator in the learning process.That would help them learn people-skills and life skills.Also the teacher's role changes with the nature of the project.

1.9 Summary

In this section we have learnt what is project work and the utility of the activity in the learning process. Project work gives a holistic experience of putting to use all the four language skills as well as practising study skills and people skills of the learners. We have also learnt the various stages and steps involved in project work and how the role of the teacher is crucial in the entire process of carrying out the project.

1.10 Review questions

1. What do you understand by project work?
2. Enumerate the characteristics of a project work?
3. In what way is it useful to the learners?
4. How many types of project works are there?
5. On what basis do you classify them?
6. What are the six stages of a project work?
7. How many steps are involved and what are they?
8. Is the presence of the teacher helpful to the learner? How?
9. What are the precautions a teacher should take before giving a project to learners?
10. Do all projects end in reporting with a document? Why?

Unit–2 : Choosing and analysing a topic

Structure

2.1 Objectives

In this unit the learners will learn

- how to identify and choose a relevant topic
- what are the considerations in working on the objectives
- what are the requirements for working out the project
- decide on the various components of the project

2.2 How to identify a relevant topic?

We have said in unit 1 that a Project work can be undertaken by learners at any level of learning. So the topic to be chosen will have to be in consonance withof the linguistic level of the learners, their background knowledge in general, their interests, and the knowledge load that they can take.

Another factor that needs to be taken into consideration is the type of topic chosen. Certain topics are amenable to certain types of projects. For example information about the demography of a particular community suits a survey project whereas Folk Music and Dance could be a performance project or a documentation project. Of course some topics can be used across the types and levels of learners.

You may think of a small exercise to choose a topic following the few steps given here :

i. jot down one or more topics of interest to you
ii. make a definite decision on your area of study
iii. write a paragraph about the project you have chosen
iv. give reasons for your choice
v. state your aims roughly
vi. state what features you are going to look at initially.

Topics for learners basically are an extension of classroom learning. Topics for teachers pertain to the development of their professional competence. Here are two lists of sample topics for learners and teachers.

Topics for Learners

- English at Railway Station/ Post Office etc.
- Newspaper Advertisements using a theme
- TVAdvertisements/Programmes
- Interviewing tourists
- Scrap Book
- Environment
- Best from Waste
- Bringing out a Class magazine

Sample Topics for Teachers

- Rewriting a Lesson
- Preparing supplementary exercises (unit/lesson in the textbook)
- Preparing low-cost teaching aid bank
- Building a class library
- Preparing a Class Library
- Preparing display materials to give learners more exposure to English
- Organizing an English Language Club in School

2.3 Working on the objectives-considerations.

Working on the objectives of a project work will have to have considerations of the scope of the project. The scope of the project in turn is determined by the level

of the learners. For example if the topic is 'English available at the Railway Station' the objectives and scope will be modest like copying out the writings on the display boards and preparing a list at the Primary school level. The same topic can have a wider scope like including collection of Reservation forms, tickets and also recording of the announcements etc. The end product also could vary like preparing a scrap book, chart etc. Suppose the topic is 'Flora and Fauna' of the region, for the Primary School learners it could be a simple collecting pictures of the plants/ flowers/ animals, making a chart and labelling the pictures. The same topic could be turned into a scrap book for a High School student with pictures, labels and also some notes on each item.

We should remember that if the objectives are worked out clearly execution of the work would be smooth. Objectives should keep the timeline in view.

Objectives of the project work will have to keep in view whether the activity is a group work or individual work, long term or short term project. It should also take into consideration whether the project is for primary level of learners of high school level learners.

2.4 Analysing the requirements of the topic

We have listed out the types of projects in the earlier section(2.3). The requirements in working out the Project greatly depend on the type of the project. A list of the requirements and the timeframe to collect data, organize the data and mode of presentation should be decided at the beginning itself.For example if a chart has to be prepared with pictures to be labelled what is required is, in the first place, a collection of pictures. Then a pair of scissors, glue, crayons or colour pencils and a sheet of chart paper. If it is a performance or exhibition project, the venue and time etc. need to be planned. A library project which requires documentation will require reading in the library and taking down notes, photocopying relevant material. Then the mode of presentation of the material. For that a schedule has to be prepared. The following points might help you in deciding the requirements for your project:

- think about the materials you will need to fulfil the objectives you have stated
- state where the materials are available
- state what is it is going to be about
- state when and how you are going to collect the materials
- write/record and edit the material
- check if you have made a satisfactory choice of materials

- discuss and seek guidance from your teacher

Task 1 : Take a close look at the steps that need to be taken to collect the materials for the project. Is there something more you would like to add? If not, state how each step is progressive in its nature?

2.5 Deciding on the components of the project

One has to be very clear from the beginningabout the varying requirements and components of the project in order to execute the work efficiently. All project works involve the student preparation or activities involved on the following aspects :

- reviewing language learnt in the class
- getting specific language problems solved with the help of the teacher
- planning the project individually or in groups
- sharing work (who should do what)
- drafting a plan of action
- collecting data/ material
- compiling/organizing the data
- preparing/editing/ finalising the production
- presentation

The specific components of the project largely depend on the type of the project. For example, if the project pertains to a survey of the tourist footfall in a place:

- language learnt in the class would pertain to the names of different countries, languages used in those countries
- getting specific information about the culture of the different countries(referring to resources in the library)
- planning a questionnaire and learning the required expressions in asking questions etc.
- collecting resources for documentation like voice/ video recording
- collecting photographs, maps etc.
- organizing the audio/visual/ text material
- editing and finalizing
- fixing the mode of presentation of the audio/video and text

Similarly for an exhibition project an additional preparation of the venue for displaying the data need to be thought of. However, once the general components are clearly envisioned, details of the components could be discussed with peers and the teacher and can be provided. Before embarking on the actual project it is useful to have a 'run-up activity' in order to understand what the learners 'need to know' in order to carry out the project. Here is a sample of a project on planning a 'Class Magazine' presented (Figure-3)where the learners systematically learn what is involved in planning a class magazine. In (Figure -4) the actual components and the activities involved can be seen.

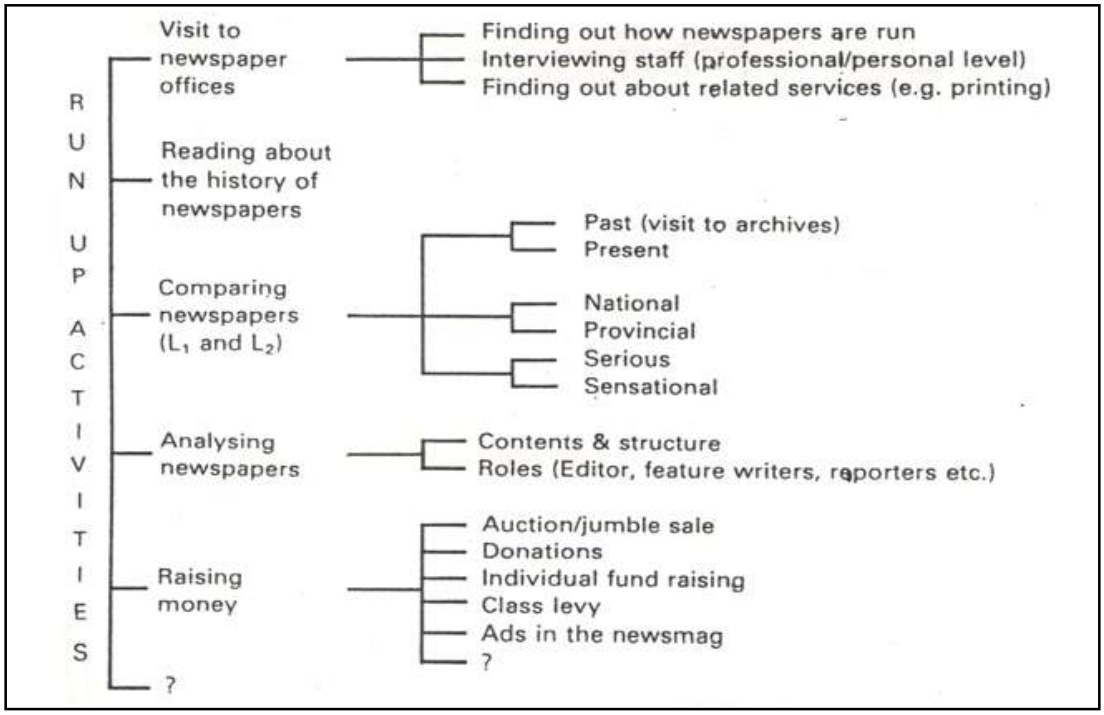

Figure-3 Byrne, Donn (1988)

Task 2 : Having looked at the topics suggested and the steps to be taken for collecting materials, suggest a few additional topics for project work with reference to your students. What run up activities would you require for the same?

2.9 Summary

In this unit we have learnt how to identify the topic for a project and that it depends on the level of the learner and other factors. We have also learnt that the objectives

for a project are worked out on the basis of its scope, type and also the timeline given. We have learnt that the analysis of the requirements and components of the topic too depend on the type of the project and whether it is a group or individual project.

2.7 Review Questions

1. What are the considerations for choosing a topic for a project work?
2. What are the factors to be considered in choosing a topic?
3. Why is it said that the topics for learners 'basically are an extension of classroom learning'.
4. What factors help in stating the objectives of a project? What do you understand by Group Project? What are its characteristics?
5. How do we decide on the requirements of a project?
6. What are the various components of a project and how are they determined?
7. Do you think the requirements of all the projects are the same? If yes, why and if no, why not?
8. Say whether the statement is true or false
   All projects need not have the same kind of preparation. [True/ False]
9. Say whether the statement is true or false
   The teacher should always help the learners identifying the topic [True/ False]
10. Say whether the statement is true or false
    Teachers and learners can work on the same kind of topics [True/ False]

Unit–3 : Finding Resources

Structure

3.1 Objectives

In this unit the learner will understand

- the various resources that could be tapped to collect data
- how the type of project would determine the resources
- how library and internet can be a sourcesof information
- how people can be a source of information
- what are the ways to collect data through survey

3.2 Type of Project and Identifying Resources

We have learnt that project work engages the learners in a meaningful language learning activity as well as interact with the content actively. The teacher mainly acts as a facilitator. As such she can direct the learners to tap possible resources for gathering information for carrying out the project. The teacher in general is a source of information and also monitors the work. Once the type of project is decided the relevant sources could be tapped to collect data pertaining to the subject. Such sources could be newspapers and magazines, books and previous studies available in the library and archives, radio and television and experts in the field. One could get data from any or all these sources. You may go back to the points given in section 2.4 to decide on the resources.

In this section an overall discussion of various sources for data collection is given. In subsequent units you will learn the various sampling techniques and methods pertaining to collecting data.

We have said that the type of project requires the learner to tap different sources of information. Let us discuss how it happens.

Let us consider a Text-basedProject and what the requirements could be to decide on the resources that could be tapped. Suppose the research is on the festivals of a cultural group, what resources could be used?

i. Library : to read books and articles to understand the cultural background of the people under study and take down notes and photo copy relevant pictures etc.
ii. Interview people to know further about their social practices pertaining to festivals and record their responses.
iii. Use Internet to search websites to find out more information about the topic.

A Correspondence Project by its name itself suggests letters, e-mails to be exchanged. Before the projectis undertaken, the learner has to know what information is sought through the correspondence. This depends on specific interest of the learner and what he/she wants to know. For example it could be a correspondence project with an Environmental Scientist.

i. The main source will be the individual or the scientist
ii. To start the correspondence and to convince the scientist that you really wish to seek knowledge from him/her; you need to do a background study on the subject. The source to use could be the library, Internet and newspapers to have updated information about the subject and also to know about the related study. This would help you to ask relevant questions.
iii. Films and Television programmes pertaining to the subject could also be a source.

All the sources mentioned for Correspondence Project could apply to Encounter Project too. The difference is that in the Correspondence Project the primary skill developed is writing whereas in Encounter Project it is listening and speaking skills.

For an Organizational Project like organization of an exhibition on the 'Freedom Movement of India' the sources could be:

i. Library to refer to books, articles, stories about the history of India and particularly about the years of the freedom struggle. Relevant photos and pictures of the leaders of freedom movement could be photo copied.

ii. Films pertaining to the Freedom Movement could be viewed and permission could be obtained to screen a couple of them.

iii. Interviewing elderly people who were witness to the events of the time could be a source of information.

Task 1: You have by now become familiar with different types of projects. Mention one example of each of the project type that you can take up in your class.

3.3 Library and Internet

We have said earlier that project work develops study skills and reference skills in the learners. There is no doubt that libraries are excellent sources of information. All learners should develop the skill to use the library because as they go up the ladder of learning they cannot depend on the teacher alone to provide all knowledge and information. Therefore teachers should encourage learners to use library to gather information right from their initial stages of education. Project work gives an excellent opportunity to practice this reference skill.

Library can be used for almost all the types of projects, as study of the details pertaining to the topic is necessary. Library is particularly an essential repository of materials in research projects.

We know that library is a storehouse of books. It also provides various other sources of information for reading in its premises as well as for borrowing. The collection of the library can include books, manuscripts, magazines, periodicals, videos, audios, DVDs and content knowledge in various other formats. A wide range of books is stored in a library and well systematically organized in bookshelves. A library is an important part of every educational institute such as schools, colleges, and universities. Learners can go to the relevant sections in the library and refer to these materials pertaining to the topic chosen. Almost all libraries now offer facility to photocopy materials without violating IPR code.

With the advent of Internet one can have limitless information on almost all the topics under the sun. In case of both the library and Internet use the learners have to be guided by the teachers to take only relevant information keeping the scope in view and not waste their time gathering everything available. They also need to be instructed on the skills of note makingand citing sources of reference.

3.4 Interviewing individuals

Encounter projects require interviewing individuals. For example, if it is a project on a famous personality, it may require the learners to interview the person concerned. The planning for the project will include reading up whatever material is already available about the person, preparing questions to be asked, taking an appointment with the eminent person and taking an audio/video recorder to record the interview and also preparing to take down notes as back up material. The language relevant for interviewing is asking questions. Questions should be relevant, seeking new information and also use polite language. Interviewing individuals helps develop listening and speaking skills primarily and also gives opportunity to develop reading and writing skills. Besides these, it also trains them to develop proper etiquette while speaking to elders and other respectable individuals in the society.

3.5 Survey and collection of data

Survey projects develop a number of skills in the learners. First of all the learners should understand the purpose of the survey. They should know the scope of the study. A survey project could be a demographic study, about the flora and fauna of the region, it could be a question on environment and pollution like how many people in the region have given up the use of single use plastic, or it could be on the fitness practices and so on. A simple survey project for elementary classes could be collecting data and classifying data regarding 'pocket money' of their classmates.

A survey project primarily develops people-skills like approaching people, convincing them to answer their questions, seeking support and cooperation. It also helps learners to develop relevant questioning techniques. Besides these they also develop listening and speaking skills. The most important part of a survey project is how to analyse the data and interpret it and arrive at conclusions. This pertains to higher order thinking skills and builds self confidence in the learners.

3.6 Summary

In this unit you have learnt what are the various types of the projects that learners and teachers can undertake. You have also learnt how resources like library can be tapped to gather information for the project. You have learnt about some sample types of projects and how such projects help develop various skills in the learners.

3.7 Review Questions

1. What are the various resources that could be tapped to collect data?
2. Do you think the type of project would determine the resources? How?
3. Describe how a library or internet can be a source of information?
4. What are the skills a library helps developing in the learners?
5. Can people be a source of information? Give some examples.
6. What are the ways to collect data through survey?
7. What basic skills does an encounter project develop in the learners?
8. Is collecting data through the Internet essential these days?
9. What basic skills does a survey project develop in the learners?
10. How does the learner collect information in a correspondence project?

Unit–4 : Planning for projectwork

Structure

4.1 Objectives

In this unit the learners will learn

- what is planning
- how to identify the scope of a project
- what is the expected timeframe
- how to allocate time for each stage of planning
- what is the role of the teacher in planning the project

4.2 What is planning?

We have read earlier that the success of a project largely depends on planning. Planning means organizing ourselves and our work, working out each aspect of the project carefully and allocating time for each stage.While planning we need to anticipate problemswe may encounter while executing and think of alternative strategies if required. The plan should have some flexibility and a margin should be allotted for such eventualities. Largely in student projects where time for the teacher intervention is allotted such problems can be tackled. (See figure 1 in section 1.7). A meticulous plan induces confidence in the learners. If it is an individual project details like what

to do when, including storing the materials collected should be worked out. If it is a group project who should do what and when should be clearly laid down. This is very important as a group project is a collaborative work and the success of the project depends on each individual's contribution. In the following sections the scope, timeframe and planning each stage and the role of the teacher are discussed.

4.3 Identifying scope and time frame

In the earlier sections we have mentioned that a project has specific scope. In this section let us discuss the details. Scope of the project and its timeframe go hand in hand and are interdependent. There could be long term and short term projects. A short term project could be completed in a day or in a week. For example, interviewing a couple of visitors to the school on the school Annual Day. Planning the celebration of the School Annual Day could be a long term project.

The scope of the short term project of interviewing visitors has a limited scope. It could be just a student project with the teacher in the background as a guide and mentor. The teacher also helps the learners with the language to be used. It involves thinking of the questions to be asked, writing them down on a piece of paper, arranging materials for recording the interview, keeping a pen and paper ready for taking notes, contacting the visitors and seeking their permission for the interview. Then the answers have to be organised to be presented in the class.

The scope and time frame of the Annual Day Celebration could stretch out to months and active participation of both teachers and students along with the Administration is required. The scope includes fixing the date and time for the event, deciding the name of the Chief guest and contacting him/her to get consent, working out a detailed guest list, preparing invitations, preparing for the performance of items for the entertainment of the guests, identifying the participants, practising for the event, preparing a stage and other paraphernalia and conducting the actual event. All these need a long timeframe of six to eight months.

4.4 Allocating time for each stage

Planning includes chalking out a schedule for data collection, division of work, consolidation of data, writing first draft, writing second draft and presentation. The following task sheet could act as a sample prop for planning. Working out the task sheet will help you in planning a project. Think of a topic for the project work,

preferably a group project and complete the task sheet.You may go back to the small exercise given in section 2.2 to complete this task sheet.

Checklist for Project Work

Questions you need to ask yourself when you undertake a project work :

1. Why have I chosen the topic?
   (objectives)
   a.
   b.
   c.

2. How do I go about it?
   (execution)

a. What are the materials/data I need?
b. How do I collect them?
c. How much time do I need for this?

3. What is the expected time limit for the project work?

4. How do I meet the deadline?
   (Schedule)

Stage	Details	Time required
I. Planning		
II. Execution 1 (data collection)		
III. Execution 2 (preparation of materials –charts graphs slides etc.)		
IV. Consolidation		
V. Writing the first draft		
VI. Writing the second draft		
VII. Presentation		

Task Sheet-1 : JayashreeMohanraj

You may replicate thetask sheet on a bigger sheet of paper and work out the details of the plan as indicated in the task sheet. Each step could be worked out in detail.Keep the timeframe for the Project and allot suitable time for each step in planning.

For example, if the project is 'Preparing a Scrap Book of Indian Art and Handicraft' by the group, Step I Planning would brainstorm in the group which include deciding how many pages the scrap book will have, what materials are required (long note book/collecting pictures/photographs from magazines, newspapers, collecting picture postcards, reading and taking down notes about Indian Art and Culture, collecting real objects like handicrafts, organizing the material and classifying them into sections, design of the scrap book i.e., what would go where, labelling the pictures etc., giving captions/ titles to sections, actual making of the scrap book. Here who will do what will also be decided so that in the subsequent stages each member of the group would have to complete the task. Again, how much time the subsequent steps like Execution I and II etc., will take also should be decided so that members will adhere to the time frame.

In Step I Planning all the above details should be brainstormed. Under time required you should write how much time this brainstorming will take. A lot of expressing opinions, making suggestions, arguing, accepting and rejecting opinion, agreeing to suggestions take place. This step is crucial. Hence you should give a careful thought on how much time you would like to give to this step in the overall planning.

4.5 Teacher's Role

The teacher's role in the Project work of the learners is crucial in many ways. She will be a participant and also a coordinator when necessary. Of course she has to give language inputs at regular intervals as shown earlier. Besides that in group projects she will have to anticipate and resolve many other issues. Her role is vital in infusing confidence in the learners whether it is a classroom project or takes the learners outside the classroom as well. She will have to take each group towards completion of the project inor on time.

If it is a Teacher Project in a teachers training programmes, the Resource Person will have to take the role of a student-teacher. Of course here she may not have to intervene in giving linguistic inputs as in the case of school learners but certainly since it is an adult learning situation other logistics have to be taken care of. In both situations flexibility is essential.

4.6 Summary

In this unit you have learnt how important it is to plan a project work. Meticulous and careful planning is the first step towards success. You have also learnt that the scope of the project and the time allotted go hand in hand. At the planning stage if the overall design of the project, different stages, and the work to be assigned to each member of the group should be decided. This goes without saying that each member should contribute meaningfully to the completion of the project. The teacher's role is crucial in making this happen.

4.7 Review Questions

1. Why is planning important in a project work?
2. What do you understand by scope of a project?
3. What do you understand by long term and short term projects?
4. Do you think the checklist for the project work would help the learners? Answer in about 100 words.
5. Why do you think the component 'Time Required' in the checklist important?
6. Think of a topic for a short term project and give a plan for the same.
7. In what ways does the teacher help the learners in planning the project?
8. Who guides in the teachers' project?
9. Why is it said 'flexibility is essential' on the part of the teacher?
10. Is the help offered by the teacher in planning a project same at all levels?

4.8 References

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Module – II

Unit–5 : Process of Sample Selection

Structure

5.1 Objectives

After going through this unit, you will be able to understand:

a. the terms sample and population

b. different qualities a sample should possess

c. how sample is selected for purposes of research

5.2 Introduction

This unit discuss the process of sample selection. In doing so it is essential to understand what a sample is and how it differs from the population. The two terms have their characteristic features and we shall look at their similarities and differences. Having done this, we shall look at the types of samples one can have and how each type is selected for purposes of research. We shall conclude the unit with a list of terms commonly used in research and project work.

5.3 Population and Sample Definitions and features

A research has a focus on problems that often trouble (bother) people. A systematic study of the problem, and the people it affects constitutes research. Choosing the people who are affected by the problem are identified as sample of the study. The sample need not always be restricted to the people involved. It is possible to gather a few pieces of writings available, and see their styles and infer if these pieces have been written by one person or different people.

While conducting research, one of the foremost necessities is to collect information or evidence (data). This data is available in a various places depending on the type of problem we are looking at. For example if we are looking at the difficulties learners have in learning English in the state of Bengal, the learners are spread across the length and breadth of the state. A researcher, given the time constraints cannot get in touch with all the learners and gather information from each one of them. Hence he needs to look for a sample of students who represent all the learners in the state of Bengal. How do we choose these learners? This is something we are going to look at.

A simple way to understand the concept of sampling is found in everyday life. While cooking a pot of rice, the cook, opens the pot, picks up a single grain and examines if it has gone soft. By looking at one grain, the cook understands that the rest of the grains are also equally well cooked. This picking up of the grain is what is called sampling.

While discussing the term sample, we also need to look at another term called population. Earlier we referred to the learners learning English is the state of Bengal. Learners of English are found at different levels, in different schools, in different locations spread across the state. All these learners constitute what we call the 'Universe'. The universe consists is several layers of population. What layers can we find among these learners who constitute the universe?

Learners can be classified according to their level of learning. Learners in High School classes; learners in English medium schools, learners in a particular class; learners belonging to a particular social strata, etc. constitute different populations. This population can be further narrowed down as follows: *Learners learning English in class IX of Bengali medium government schools in the state of West Bengal*. Imagine the number of government schools in the state of West Bengal offering education through Bengali medium. The number could be reasonably large and the spread of these schools could also be across a large area. And all the students pursuing

class IX studies in such schools constitute the population for our study. Can we contact each one of them? The obvious answer is though it is possible, it is very difficult and time consuming. Hence we need to find different ways of getting information from these learners.

To facilitate easier reach to all these learners, we choose a small number of learners from a few government schools that offer education through Bengali medium. Would this be an appropriate thing to do? How do we select these schools? What criterion do we follow for such aselection which wouldconstitutes sample selection? Let us look at this.

How do we describe the population? What are its characteristic features? The population consists of learners in class IX. They belong to different social strata in terms of economy of the parents, their caste, profession, etc. They are from both urban and rural areas, some of them also belong to semi-urban areas; and there boys as well as girls that constitute the population. While selecting the sample, care must be taken to see that all the characteristic features available in the population are also available in the sample. Then the sample is said to be representative. Let us now look at some of the qualities of a good sample.

5.4 Qualities of a good sample

In the previous section we have looked at the terms Population and Sample, and discussed how sample is a small part of the population. In passing we have also looked at the term universe, but for project work, at this stage, we may not need this term. This is because the scope of a project as we are discussing it here is much smaller.

A good sample as we said should have all the qualities of the population. What are these qualities, let us look at it here.

a. **The sample should be representative :** This means, the sample should be faithful to the population and possess all or most of its qualities. The sample cannot have any additional qualities that the population does not have. We have listed some of the qualities of the sample in the previous sub-section. We have given the broad title of these categories. When we look at the population closely, the distribution of different categories of learners form a specific ratio. The sample should also have the same ratio to be representative. For example, if the population has boys and girls distributed in the ratio of 52:48, the sample should also maintain a similar ratio. This ratio can be extrapolated to other qualities of the population as well.

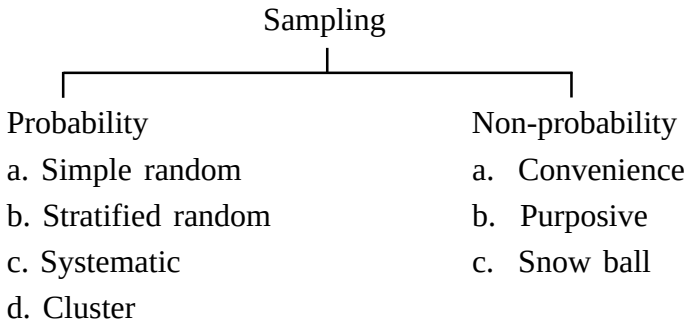
b. The sample should not be biased: Often, researchers choose a sample that is easily available to them, either in terms of proximity, or previous contacts. Such samples can be biased and may not yield the desired data

Depending on the needs of the project, the sample type and size may vary. There are different types of samples based on the procedures adopted to collect the same. We shall look at some of the sample types.

5.5 Sample types

We know what a sample is, and the type of sample depends on the type of research. There are two types of research viz. Quantitative research and Qualitative research. Generally, quantitative research demands Probability sampling where every individual of the population has an equal chance of being chosen. The qualitative research demands a non-probability type of sampling where the individuals are chosen according to certain needs of the researcher. Both types of sampling have different strategies, and we shall look at seven different types of sampling procedures. In this sub-section, we shall mention the names, and provide details of each type in the next sub-section.

Probability sampling where everyone has an equal chance uses four strategies to select the sample. These are: Simple random; Stratified random, Systematic, and Cluster. The non-probability sampling uses three strategies such as convenience, purposive and snowball. We can represent this diagrammatically as follows:



5.6 Sample selection procedures

In the previous sub-section we have mentioned two broad types of sampling procedures and the strategies that we can use to collect samples under each category. Here we shall briefly define each strategy and provide an example.

5.6.1. Probability Sampling

This type of sampling is largely used in quantitative analysis. Here each variable is represented in terms of tangible numerical values and these facilitate easy comparison. This research generally requires large samples and there are four strategies used to select sample. Let us look at each of the strategies.

For the convenience of discussing this, let us have our population as learners in class IX English medium of a particular school. This school has two sections of class IX and each section has 45 students. The total population for our study is 90 and we need a sample of 30 students. How do we select these 30 students from the overall strength of 90 students?

a. Random Sampling : In the morning assembly, it is just announced that there is a need for 30 students from class IX and that they could come voluntarily and register their names. Which of the 90 students come and register is left to the choice of the students. However, what needs to be understood is that each of the 90 students has an equal chance of volunteering. Nobody is denied the chance. Such sampling is called Random sampling. (This is akin to the cook picking up a few grains of rice from the pot to check if the rice is cooked.)

b. Stratified Random : We have said earlier that the group of 90 students is shared between two sections - let us call them A and B. While choosing volunteers we do not want to deprive one of the sections (in random sampling, all the 30 could possibly have come from just one section, and we have no control over it). Hence while announcing the need for volunteers we specify that we need 15 students from Section A and 15 students from Section B. There could be similar stratification and we may choose equal number of boys and girls or in the same proportion that they are divided in the population. Since we have clear concept of how the population is divided, we provide equal opportunity to each of the groups in the population. Such sample selection is called Stratified random sampling.

c. Systematic sampling : We may find either random or stratified random giving and advantage to some students who are more active leaving out some of the students who are either shy or do not like to volunteer. In such a case, the teacher can pick up the attendance register and say that every third person on the rolls will be selected as sample. Therefore we will have students with roll numbers 3, 6, 9, 12, and so on. This will give us 30 students but much depends on the roll number the student has been assigned. This selection is objective and representative.

d. Cluster sampling : In order to use cluster sampling the researcher should have a proper understanding of the population and its composition. The researcher may

have identified eight groups of students in the population based on gender, social structure, economic background, academic achievement, interest in sports, music, painting, and general reading. Depending on the size of each of the groups, the researcher may choose or ask the group to send a volunteer to participate in research. This will help form a highly representative sample.

5.6.2. Non-Probability Sampling : This type of sampling is required for Qualitative research. In this research, most of the variables are based on abstractions and cannot be captured in terms of numbers. Such research demands in depth study and the sample size is generally small. This research uses three strategies for choosing the sample for the study. We shall proceed with the same assumption that we made while selecting probability sample and discuss each of these methods.

a. Convenience sampling : The researcher has familiarity with a set of students in the class. The researcher finds it comfortable working with such students while eliciting the data, and hence chooses them. The students are also comfortable working with the researcher. Such sampling is called convenient sampling. Convenience could also extend to choosing a site which is easy to reach, closer to the place of work, a relative working as the principal of the school, etc. These variables do not matter in qualitative research and hence convenient sampling is taken as a standard procedure.

b. Purposive : This type of sampling is used with a specific purpose. The researcher has been looking into the problems as they exist with smaller groups that demand special attention. For example, there may be a group of learners who are specially abled - weak in limbs, impaired hearing, visually challenged etc. Problems of such learners are specific to each group and collecting data from others will not be helpful. Hence the researcher chooses to collect data from the select group and such sampling is known as purposive sampling.

c. Snowball : The researcher is not familiar with the group. However, the researcher is able to identify one or two volunteers who can be helpful in providing the necessary information. Using these two students, the researcher requests them to bring a few other students with similar qualities. By identifying one or two volunteers, the research is able to expand the sample size. This is like a small ball of snow when rolled on will gather more snow flakes and grow larger in size. This strategy is called snow-ball sampling.

Each type of sampling has its own advantages. Much depends on the needs of the research project and the type of data that needs to be elicited.

5.7 Summary

In this unit we have reasoned out how project work is a process of initiating the students into research processes. In order to conduct research, it is very important to collect data (information) and this data needs to be elicited from a group of stake holders (respondents). Such group of stakeholders are called sample and the sample needs to be representative of the population from which it emerges. There are different ways of selecting the sample and these strategies are mainly of two types - probability samples and non-probability samples. Each of these groups uses strategies and the seven strategies are briefly discussed here. In the next unit, we shall take up a discussion on data collection and tools required for the same.

5.8 Review Questions

a. Is it right to compare project work with research?
b. What is meant by sampling?
c. Can you give examples ofsampling from daily life activities?
d. What are the characteristic features of a good sample?
e. How is sample similar or different from population?
f. Is there a group larger than the population? Should we take this into account for a project work?
g. What do we mean by Probability sampling?
h. How many strategies can be used to select a sample for quantitative research?
i. What type of sampling is required for qualitative research?
j. How many strategies are used for collecting sample for qualitative research?

5.9 Reading list

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Unit–6 : Developing tools for data collection

Structure

6.1 Objectives

After going through this unit, you will be able to understand:

a. what is data

b. the importanceof data in research

c. Datatypes and components

6.2 Introduction

In the previous unit, we have looked at how project work is in many ways a research project. In order to conduct research, we need a sample. The sample provides data to help us arrive at a set of solutions and offer suggestions to get over the problem. In this unit we shall look at what is data, what the various types of data are, and what its constituents are. We shall also look at some of the tools used for data collection and discuss how these can be constructed by a researcher.

6.3 Data definition and types:

Data is a word derived from Latin. Data is the plural form of the word 'datum' and means 'something that is given'. We need to understand this as the information that is available to us. We live in a complex world, there are a large number of things around us that we either do not understand or understand partially. Being curious, we like to explore the mysteries (what we do not know) hidden behind certain phenomenon. To explore such mysteries, we need some information. We may get this information from people who are wiser than us, by reading books, by observing, by handling the 'mysterious' thing (analysing it by breaking it into its parts) or some other means. Each of these acts gives us some information, and this information is called DATA.

The information we collect may be of several types. Based on its properties and usefulness, data can be classified into two groups - primary data and secondary data.

6.3.1 Primary Data

The primary data is collected by the researcher who is actually involved in the process. In order to collect this data, the researcher may use a set of tools such as questionnaires, interview protocols, observation protocols, etc. This data is generated for the first time with respect to the research in question. Such data is also called 'raw data' that needs to be processed.

6.3.2 Secondary Data

The secondary data is data available at large. This is information that has been collected earlier and documented in some form. This could refer to information available in books, official documents, historical edicts, museums, archives, libraries, almanacs etc. The researcher needs to wade through a lot of materials to collect the secondary data which supports the primary data.

Collecting both types of data is a time consuming process. Whether we have primary data or the secondary data with us, they have certain components called variables that influence them. We shall look at what variables are.

6.4 Variables and types of variables

Variables are measures used to examine the data and establish its validity or usefulness. Depending on the type of research in progress, we may have quantitative variables or categorical variables. Let us look at each one of these and provide some examples.

6.4.1 Dependent and Independent Variables

Variables are seen in the form of some values that they can yield to facilitate comparison, contrast to arrive at a conclusion. For example, more exercises a language lesson has, the results it yields are better'. Here the exercises and the lessons are variables and both these are part of our research data. The lesson which cannot be altered is called a dependent variable. (You can depend on it). The exercises, which one can manipulate or alter are called independent variables. Independent variables can affect dependent variables.

Let us now look at quantitative and categorical variables.

6.4.2 Quantitative Variables

Quantitative variables refer to information collected in terms of numbers. For example the population of a country (as gathered from the census), amount of food consumed by an average adult (using a survey and measured in grams or calories), average number of books read by a researcher (using an interview and contacting a set of researchers) constitute quantitative data.

The quantity measured can be represented in discrete form, or continuous form. Discrete variables have units that can be counted in a place - for example the number of students in a class is a discrete variable. Similarly number of books in a shelf in the library, number of flowers required to make a garland etc. are discrete variables.

6.4.3 Continuous Variables

Continuous variables are stretched across space and need different units of measurement. The time taken for rice to boil is a continuous variable. Similarly, distance between two places on a map (or actual places in a country or a state) are

considered continuous variables.

While measuring the speed of a train, you need to take a ratio of two continuous variables such as speed and time and express it in the same form miles per hour etc.

6.4.4 Categorical Variables

We use the term categorical variable to represent how data can be gathered from distinct groups into which the sample can be divided. This could be in terms of gender (men/women; boys/girls; adults/teenagers/children; students/teachers etc.) Categorical variables fall into three types as follows - binary, nominal and ordinal variables. Let us provide some examples for each of these to understand what they mean.

Binary variables are such samples that yield to two categories only - for example gender (male/female) or composition of a school (students/staff) etc. This could also relate to concepts such as 'pass or fail' in an examination; situation 'dark/bright'; weather 'hot/cold' or 'wet/dry' etc. Binary division is common among a variety of samples that we have from where we can collect the data.'

Nominal variables refer to groups where there is the absence of hierarchy. There is not sense of one group being superior to the other. We often classify things as per our convenience - items of grocery on a list; animals in a zoo; plants in a herbarium etc. These are based on taxonomical classification based on characteristics of individual groups. None of the groups is given any priority - mammals are the same as aves or teachers are as important as students in a school set up.

Ordinal variables refer to ranking. These variables are in contrast with the nominal group of variables. Here the ranking of the components is important. Achievers in an examination are placed in the order of merit - the first rankers versus the others. In research, data is often collected based on preferences or choices ofthe respondents have. Such responses are ordered in terms of preference and analysed on Likert scale. While recruiting personnel for the army, the physical standards such as height, weight, etc. are marked on an ordinal scale for purposes of easy comparison.

The data we collect has several variables, and these are decided after the data is collected and is ready for analysis. How do we collect data? In this unit, we shall look at the various tools available for the purpose and describe them in detail while discussing data collection procedures in the next unit.

6.5 Tools for data collection

Data is collected from a sample that has been selected for the purpose. In order

to collect data, we need some tools. These tools have specific objectives, and are either developed by the researcher or borrowed from standard formats that are available. We shall look at five of the tools that are commonly used in social science research.

6.5.1 Questionnaires

These are the most common tools used in social science research. Questionnaires are largely used in quantitative research where one needs to get in touch with a large sample. Questionnaires are in the form of a series of questions that elicit specific responses from the sample. There are three parts to a questionnaire as follows:

- An introductory letter explaining the purpose of research with a request to the respondent to provide necessary information. This is a matter of courtesy. The letter should also thank the respondent in advance for sparing his/her time.
- The initial demographic data questions - these questions elicit personal data such as the age and gender of the respondent, qualification, language proficiency, present state (student, teacher, or other professional), length of experience, place of residence (rural/urban) and other related questions.
- The actual questionnaire. This has questions pertaining to the topic which provides us the information for research. These may change according to the topic of research and the objectives that the researcher has. Care should be taken to see that the questionnaire is not unduly long (a maximum of 50 questions), and the questions are worded in a language that can be understood by the respondent. The questions should not require long answers (unless inevitable). Most of the questions should be objective where the respondent can choose from the list of options provided. These could be in the form of polar questions or preferential questions where the respondent marks his/her preference to a list of items given.

Though questionnaires are easy to administer, they are difficult in terms of analysis. The researcher needs to go through each response carefully and mark tallies to arrive at either frequency or commonness of response and plot it either on a graph or in terms of percentages. There are other attended problems with questionnaires. Unless monitored, many questions may remain unanswered and this will result in getting inadequate data. It is also possible that the responses are not always honest and some people may either delay or not submit the responses in time. There is a loss of data and finally a questionnaire cannot elicit qualitative data.

6.5.2 Interviews

Data from interview can be obtained in a short span of time. However, data obtained will be from a small group as each event (interview) is individualized and time consuming. Interview responses can be audio recorded, or the researcher can take notes and have the draft verified by the interviewee. There are three types of interviews in practice - the structured interviews, semi-structured interviews and unstructured or open interviews. Let us take a look at each one of these.

- **Structured interview :** The researcher is sure of the questions he/she needs to ask. All the questions are written down in order and all the interviewees will be asked the same questions in the same order. The researcher has highly specific objectives in collecting data using such an interview structure. Often, the researcher provides these questions in advance to the interviewee and the respondent may choose to give answers in writing.
- **Semi-structured interview :** In this case the researcher has a set of questions ready with him/her properly ordered. However, in the course of the interview, the researcher may add a few additional questions either for clarification, or as prop questions to prompt the interviewee to respond. The interference on the part of the researcher could also be to elicit illustrations.
- Unstructured interview or open interview : This is a difficult situation as the researcher needs to be quite familiar with the field of his/her research. The interviewee will be an expert from the field and responses elicited will be to help the researcher arrive at a concept, or understanding of a situation as it exists from the expert's point of view. (For example the state of English Language Teaching in a particular state, region at a given time.)

The data collected from interviews will have to be properly recorded and retrieved and shared with the interviewee for verification. This is both a matter of courtesy and authentication of the data collected.

6.5.3 Observation protocol

This is a good tool for collecting data based on a set of events or processes - e.g. classroom teaching behaviour, learner participation in classroom, etc. Like interviews, observation can also be based on a structured format or could be open. In research, a structured format (also called the Observation protocol) is preferred as it saves the time of the observer, allows him/her to focus on the event completely, and also be objective. Producing a protocol (format) demands a good knowledge of the event and the researchers' ability to analyse the event or the process as minutely as possible.

There are some precautions that need to be taken while producing the observation protocol. The schedule produced must allow the observer to observe without disturbing the event (classroom teaching etc.). The observation must be as objective or record what actually happens without colouring it with researchers' prejudices. Often, while observing we carry with us our baggage– 'it could have been done like this' etc. The observer should also take care to sit in a place where he/she is not obvious making the performer (teacher) self-conscious. These are some of the precautions one should take.

6.5.4 Case studies

This tool isvery helpful in collecting qualitative data. It involves an in-depth study of an individual, a group or an event. A case study can be conducted based on the odd behaviour of a learner (who could be a special learner, gifted learner, dyslexic learner, etc.). It is also possible to observe a group of learners who are good at one particular way of learning (kinesthetic learners) and find out reasons for their preference. It could also be based on why a particular school always performs better in sports/ studies etc. and investigate the reasons for such performance.

In order to conduct case study, the researcher needs to invest a lot of time by contacting the subject of study over a period of time at regular intervals. The researcher needs to use a variety of strategies such as interviewing, meeting the parents, observing, analysing etc. It is a complex process, but yields better results.

6.5.5 Checklists

These are also protocols or formats such as the observation protocol or the interview protocol. The checklist helps a researcher track the progress of research, the types of data to be collected and provides feedback on the work yet to be completed. A checklist is also used to verify whether the information gathered is right or wrong by comparing it with other sources and checking it for various components item by item. Checklists are helpful at the time of data analysis rather than at the time of data collection.

We have looked at some of the tools that are available easily to a researcher. There are other electronic gadgets that can be used to facilitate the process of data collection, and these do not affect the quality of data collected.

6.6 Summary of the unit

This unit is largely seen as a continuation of Unit 5 where we discussed sample selection procedures. A sample is selected or chosen to gather data. The data serves the purposes of research in question. The data needs to be generated from the sample using a set of tools. What these tools are and how they are used is discussed here. We have also discussed aspects of variables, their types and qualities to help you understand the importance of data in research. All the examples used here are from the field of social sciences, especially, English Language Teaching.

6.7 Review Questions

a. What is data?
b. What are the types of data that we can elicit?
c. Are the data for qualitative and quantitative research different or similar?
d. What are variables?
e. How many types of variables are there?
f. What are the various tools used for data collection?
g. Why is questionnaire the most popular of data collectiontools?
h. Discusscase-study a tool of data collection.
i. What precautions should the researcher take while using observation protocol?
j. How many types of interview are there? What are their features?

6.8 Reading list

Best J W. (2016). *Research in Education*. London: Pearson Education (10th Edition)

Creswell, J W. (2018). *Educational Research: Planning, Conducting, Evaluating Quantitative and Qualitative Research*. London: Pearson Education

Unit–7 : Techniques of Data Collection

Structure

7.1 Objectives

After going through this unit, we will be able to :

a. understand the reasons for data collection

b. know different tools that are in use for data collection

c. construct the necessary tools and use them properly

7.2 Introduction

In the previous unit we looked at some of the tools used for data collection. We mentioned briefly what data is and also looked at the types of data that can be collected as part of research. In this unit, we shall look at the tools used for data collection, their objectives, the ways of constructing these tools and validating them using a set of procedures. We shall also discuss some of the ethical practices that need to be followed while collecting data and conclude the section with a set of review questions.

6.3 Data Collection

In this unit we shall look at different procedures that one can adopt to collect data. It is essential to know what data is and the reasons for data collection. Since we have already discussed what data is in the previous unit, we shall briefly summarise it here and proceed to discuss the reasons for data collection.

What is data?

Data is a word derived from Latin. Data is the plural form of the word 'datum' and means 'something that is given'. We need to understand this as the information that is available to us. It is not any information, but relevant information essential for the research or the project we have on our hands. We may get this information from people who are wiser than us, by reading books, by observing a set of phenomenon in nature, by handling the 'mysterious' thing (analysing it by breaking it into its parts) or some other means. Each of these acts gives us some information, and this information is called DATA.

7.3.1 Reasons for data collection

Why is data required for research? This is a question that is often asked by students pursuing research. There can be several reasons for this, and we shall look at a four of the significant ones here.

a. **Data helps in making informed decisions :** As we have said earlier, 'data' means information which can be equated with knowledge. The better the knowledge one has about things or problems, easier it becomes to solve the problems. Research is basically a problem solving process and it requires data both to understand and solve the problems on hand.

b. **Data identifies a problem :** Data helps in identifying the problem as well. Very often, we begin with a set of assumption and based on our assumptions identify a problem. Often, we may not be in a position to identify the problem properly. However, when we collect data, the data provides us with a proper perspective of the problems and helps us identify the same. For example, we may dismiss a learner as weak and incompetent. When we invest time to gather more information about such a learner, we may discover the learner to be gifted rather than being incompetent. (Read Dibs in Search of Self by Virginia Axline).

c. **We may arrive at a set of generalisations :** When we have adequate data we may be able to notice in it several features which are common among different members of the sample. This leads to inferring some generalisations

based on the data - such generalisations could be about behavioural patterns, or way things work, etc.

d. **Support an argument :** Research is based on a set of assumptions and these assumptions are stated in the form of hypothesis. The hypothesis is either established (proved) or rejected (disproved) based on the data and its analysis. The proving of a hypothesis is in the form of a logical argument put forth by the researcher. Data provides the necessary support in such an argument.

Besides these four uses cited here, there are other uses of data as well. For the type of research carried out in project work, these four uses will suffice. Project work largely builds on one's ability to take decisions and infer the right generalisations or draw conclusions.

7.3.2. Types of data :

The information we collect may be of several types. Based on its properties and usefulness, data can be classified into two groups - primary data and secondary data. The primary data is collected by the researcher who is actually involved in the process of research and is collected using a set of tools such as questionnaires, interview protocols, and observation protocols, etc. This data is generated for the first time with respect to the research in question. Such data is also called 'raw data' that needs to be processed. The secondary data is data available at large. This is information that has been collected earlier and documented in some form. This could refer to information available in books, official documents, historical edicts, museums, archives, libraries, almanacs etc. The researcher needs to wade through a lot of materials to collect the secondary data which supports the primary data. Collecting either forms of data is a time consuming process.

7.4 Tools described

In the previous unit (Unit 6) we have mentioned five different tools that are popularly used for data collections. We shall take a look at these once again before moving on to discuss the process of data collection. We shall discuss all these tools as a generic group rather than discuss them individually.

The five tools we have mentioned in the previous unit are Questionnaires, Interview protocols, Observation protocols, Case Studies and Checklists. These help us in different ways to collect either quantitative or qualitative data. Each of the tools is specially constructed by the research scholar, and further validated by pilot trials or

the reliability of the tool is established using statistical procedures such as Cronbach Alpha reliability test. However, when it comes to collecting secondary data, we may need to depend on books in the libraries (related literature review is an obligatory part of research procedure), museums (that provide access to ancient document, artifacts, lives of people in earlier ages, etc.), historical and archeological edicts (stone tablets, parchments, palm leaf manuscripts, etc.), encyclopedias and almanacs, official records and documents, commission reports, judgments etc. Looking for these sources may take a long time, but these will prove to be valuable resources in establishing our point of view or discover a hidden truth.

7.5 Procedures/techniques of data collection

There are no fixed procedures to collect data. However, some of the methods used have become popular and researches tend to use these often. We shall take a quick look at some of the established procedures.

7.5.1 Survey

This is a fairly common procedure adopted to collect data, especially when the data required is from a large sample. The tool used for survey could be either a questionnaire, an interview or using a checklist. What does survey constitute? A survey is a measure by which one can collect specific data from a selected sample. For example people involved in market research can find out from a large sample the flavour of the soap people like the most, colour of the fabric, type of food they like to eat, etc. In order to conduct the survey, a good questionnaire is prepared with reasonable number of questions and administered to a large sample. The responses received are collated to draw inferences. When the inferences are made, a smaller group of the sample is interviewed (in a structured format) to elicit responses to check whether the information and the inference drawn from the questionnaire are correct. Interviews are also used to elicit some personal data, opinion of the experts, clarify concepts, and lend support to the assumptions we have made at the beginning of our research. Checklists are popular in market survey research to find out the opinion of the people at large about a product launched in the market. This can also be used in the educational research to establish the relevance of teacher practices, learner behaviour and other related aspects.

7.5.2 Case Studies

This is another procedure to gather data based on social behaviour of people. As

there a variety of people in the society, each group depending on various factors such as economy, age, gender, social background, education, health differ in their behaviour. By selecting a small sample of respondents of one particular group, a sustained observation can be carried out and the behavioral traits can be recorded. This will help in arriving at a set of generalisations and facilitate an objective description of a group of people. For example the behaviour of learners with autism, behaviour of people with some impairments (visually challenged, hearing impaired, physically challenged, etc.), behaviour of gifted learners who could be hyperactive, and other varieties. (Read Kamala V Mukundan'sWhat did you ask at School Today?And also Gijubhai's Divaswapna). Case studies have to be conducted with great care for we need to be sensitive to the demands of the special group of people we meet during this process. The observation we involve should also be less intrusive taking care not to disturb the personal space of the individuals involved.

7.5.3. Observation Protocol

This is another procedure largely used in teacher training and research in education. In order to establish a teacher behaviour or find out the efficiency of a new method or the usefulness of a set of materials and how they work in the classroom, observation happens to be a highly useful strategy. The observer needs to go to the classroom with a clear mind (carrying no prejudices or baggage) and observe the teacher in action as subtly as possible. To observe objectively and comprehensively, the observer needs to prepare a schedule (also called 'protocol'). The schedule so prepared needs to take into account all the activities that possibly can happen in the classroom while teaching. These factors could be broadly divided into a few categories as follows: Class/level, date and time of observation, topic/skill being taught, objectives (stated and inferred), teachers' familiarity with the topic, the beginning, (motivating learners, introducing the topic, etc.) use of text materials, chalkboard, teaching aids, learner interaction, classroom control, illustrations offered, explanation of concepts, and concluding the class (appreciating learners, assigning follow-up work, etc.) The observer should use a scale or ticking options such that not much of the observation time is taken in taking down elaborate notes (which may result in missing out some part of the class). The observer should not disturb either the teacher or the learners with his/her intervention. The end result of observation should be a proper unbiased report of the classroom proceedings which provide data for analysis and further inferences. What is true of observation protocol holds good for producing and using checklists as well. Checklists are specifically used for observing certain processes e.g. an experiment in a laboratory, measuring learning growth, observing changes in

child language development in a given span of time, etc. Checklists are especially useful while conducting research in the area of phonetics when it is possible to check the progress made by a learner everyday over a period of time.

7.6 Ethics while collecting data

There are certain restrictions one should observe while collecting data. The first and foremost of these is the researcher should learn to respect the members constituting the sample. Much of the success in research depends on the quality of data provided by the sample. Besides it is a matter of courtesy to treat others as equals and respect them.

a. The researcher needs to take permission from the sample before administering a tool like the questionnaire or conducting an interview or observe the class.
b. While administering the questionnaire, since the sample is large, at the beginning a personal letter needs to be attached to the questionnaire.
c. The letter should provide details such as objectives of the research, how data provided will be used and also maintaining confidentiality of the responses.
d. An undertaking that the data elicited will be used only for purposes of research and not for any other purposes.
e. A promise that the help offered will be duly acknowledged.
f. The request letter should also provide reasonable time to the respondent for completing the questionnaire.
g. Mode of collecting the questionnaire after it is duly filled in should be clearly stated.
h. While conducting case study and observing a class/process etc. adequate assurance needs to be given to the sample about maintaining confidentiality.
i. The researcher in his/her letter should not forget to thank the respondents for their help.
j. The researcher should also state clearly his/her identity and the permission he has from the institution where he/she is working for conducting the research.

Besides assuring the respondents, the researcher should also exhibit a polite behaviour when he/she meets the interviewees, teachers (for observing their classes), and the participants on the case study. The language of the questionnaire, interview questions, etc. should be worded carefully so as to not offend any of the respondents.

The researcher should also be aware of gender sensitivity and other areas that can inadvertently hurt the respondents.

Besides these, the researcher should develop his/her own tools for collecting data. If the tool used is an adopted version from an earlier research, it should be duly acknowledged. These few points constitute ethics of research and these should not be ignored.

7.7 Summary

In this unit, we have discussed how the data collected is important for research. We have listed some of the reasons and also stated how the tools used for data collection need to be carefully constructed. We have subsequently discussed some of the procedures adopted for collected data and the ethics involved in collecting data. We have provided brief description of each of the procedures for data collection. However, these are not exhaustive and each researcher may find his / her own way of collecting data within the framework of strategies mentioned here.

7.8 Review Questions

a. What is data?
b. What are some of the reasons for collecting data?
c. How many types of data are you familiar with?
d. What are the tools of data collection?
e. Are the tools independent of the type of data required?
f. How are the tools developed by the researcher?
g. How do we collect data using different tools?
h. Is Case study the same as observation? What are the differences?
i. How is a questionnaire produced?
j. What do we understand by the term ethics in research?
k. What are the possible contents of an introductory letter in a questionnaire?

7.9 Reading list

Axline, Virginia (1964). *Dibs in Search of Self*. New York: Ballatine Books. ISBN 0345339258

Best J W. (2016). *Research in Education*. London: Pearson Education (10th Edition)

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Gijubhai. B. (2015). *Divaswapna*. New Delhi: Prakashan Sansthan (This book is in Hindi)

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Unit–8 : Analysis and interpretation of data

Structure

8.1 Objectives

After going through this unit, you will be able to :

a. take a closer look at the data and organise it

b. identify different variables (parameters) of the data

c. decide on the type of analysis the data requires

d. use appropriate statistical measures to infer results

8.2 Introduction

In the previous unit we have looked at the tools and procedures used for data collection. While discussing this, we have provided some details regarding the types of data, tools used for collecting data as well as strategies or procedures adopted for collecting data. Depending on the type of research, the data we collect could be quantitative or qualitative. Both types of data demand analysis and the analysis is different in each case. Quantitative data demands statistical analysis whereas the qualitative data may require mere comparisons to help the research draw inferences. We shall look at these types of analysis in this unit.

8.3 Data Organisation:

We are aware of what data is and how it is collected. To a researcher, at the end of data collection, the information on hand looks formidable and enormous. This needs to be organised appropriately to help gain a perspective to facilitate analysis. How do we organise data?

Data is derived from different tools. In the first phase, it is essential to separate data elicited from each tool and file it properly in one bunch. The second aspect of data organisation is in coding the data - the data is derived from different members of the sample. The same set of sample can yield two sets of data. Each member of the sample needs to be given a code - (it is unethical to use the actual names as that would go against the principle of maintaining confidentiality). Let us assume there are three sets of sample - Parents, Teachers and Learners. Parents can be coded as P1, P2, P3. . . and so on. Similarly, teachers and learners can be coded with letters T and L and numbered as per the size of the sample.

Parents may have responded to interviews, teachers to observation and learners to questionnaires. In such a case the code can be as follows: Pi; To; and Lq. This code can also carry numbers to represent each individual.

In case one set of sample has been administered two sets of tools then we may code the sample accordingly - Lq and Li and Lo etc.

It is necessary to prepared spread sheets properly labelled to organise the data on X and Y scales as shown below :

Q. No / Sample	1	2	3	4	5	6	7	8	9
Lq1									
Lq 2									
Lq 3									
Lq 4									

A separate sheet for each type of data and each type of sample needs to be prepared. This facilitates easy comparison to draw inferences or make a study of the progress.

Data organisation basically deals with the ways in which we arrange the data to help us analyse it easily.

8.4 Data Parameters

The data collected is often amorphous or shapeless unless it is properly studied and sorted out for different types of information. We have looked at the concept of variables (please refer 6.4 of this module) which provide the qualities of data. These variables could be of different types and we have discussed these with examples.

Variables provide quantitative data as well as qualitative data. The quantitative data which is represented in numbers can have a set of parameters which help in analysis. These are statistical measures used to describe the population (sample). Parameters take into account different characteristics that make a significant contribution to the study. Let us take an example where we have a sample where the age of the members range from 15 years to 25 years. There could be as many as 300 members in the sample. To describe each one of them could be difficult. In such a case we may use a set of parameters like Mean, Median, or Mode. These are called the measures of central tendency because they capture the characteristic features of the group in a tangible manner. It is necessary to understand these terms properly.

a. **Mean :** This term represents the average age of the sample. It is one of the easiest measures to calculate. We add up the age of individual members and divide it by the total number of people to arrive at the mean. This is represented as follows :

$$M = \Sigma x/N$$

Where M stands for Mean (mean is also represented by x bar

Σx stands for total of every member's age

N stands for the number of individuals in the sample

If we have five members in our sample and their ages are :

P = 18 years

Q = 22 years

R = 16 years

S = 19 years $\quad \Sigma x = 95$

T = 20 years $\quad N = 5 \quad M = 95/5 = 19$

Mean often has little value by itself. It is also called the arithmetical mean or average.

b. Median :

When we calculate the mean, it may not give a true value. The numbers at the two extremes can vary widely and this may not give a proper picture of the true central tendency. To cite an example if the attendant in a CEO's office earns Rs 20,000/- a month and the CEO earns Rs. 5,00,000/- a month, the average salary of the others in the company is going to be affected by these two figures. Median is a central tendency that we arrive at using the formula (n+1)/2. Let us take the same data and find out what the median age of the group is.

Step 1 : Let us arrange all the numbers in an ascending order as follows: 16, 18, 19, 20, 22. There are five numbers in all.

Step 2 : Apply the formula (n+1)/2 = (5+1)/2 = 6/2 = 3

Step 3 : Look for the third number in the group = 19

The median is 19.

(In the example we have chosen, the median matches with the mean, but this may not be the case always.)

c. Mode : This is another measure of central tendency often useful in industry and academic studies as well. This refers to a value or number that is repeated often in a series. The data we have is not useful here. Let us take some common examples. Shoes of size number 7 are manufactured in greater number than other sizes. This is because, in the population at large, people with this foot size dominate. Similarly size of clothes, weight of a snack sold in a restaurant, etc. are decided based on the mode which represents the most frequently occurring number. This measure is also used to understand the performance of students in a class, time taken to run a length in a race etc. When we have large samples, (average age of the population in a nation) we take frequencies which fall at regular intervals. If we have India in question, then the frequencies could be as follows :

<years (below 15 years)
15 to 25 years
25 to 35 years
35 to 45 years
45 to 55 years
55 to 65 years
65 to 75 years
>75 years (above 75 years)

Number of occurrences for each frequency is taken and the frequency that has the highest number is taken as the mode. In India, the mode is 35 to 45 years. This means, majority of the population in India are aged between 35 and 45 years.

We have looked at three measures of central tendency and provided examples for each and methods of calculating the same. We will discuss their uses later when we discuss statistical methods of data analysis.

8.5 Data Analysis

While analysing data, proper organisation of the data is helpful. This facilitates easy comparison. For example, when we enter the marks scored by each learner in a particular subject, we can rank order the scores and decide who scores the highest and who scores the lowest. It is also possible to say what the average performance of the learners in the class is. Besides this, we will also be able to plot the frequencies and say what the mode or the median score is.

When we have the marks scored by the students in different subjects, it is possible for us to plot and show which subject has the highest number of marks scored. This helps us infer facts such as the subject that is easy, the subject that is liked the most etc.

When we have demographic data (census that takes place once every ten years) when analysed gives us details of spread of population across different areas of the country, number of languages spoken, number of ethnic groups present, levels of education among different categories of people, types of professions followed, etc. These figures are derived with good data properly organised.

All the examples given above refer to quantitative data. Quantitative data is also analysed by taking percentages for each group or variety as the case may. The examples cited above can all be converted to percentages as well. Percentage is a simple statistical measure when the entire population is reduced to 100 and the other proportions fit into this number. Like simple mean, percentages by themselves do not merit comparison.

The examples cited above talk of the distribution of the sample. This distribution can be represented graphically using graphs, bar graphs, pie diagrams, or grids. Such representation helps us capture the analysis quickly and retrieve the essential information.

When data is analysed, especially the qualitative data, there is a need to convert this quality into quantity for analysis. Further a few statistical measures are used to

infer whether the results obtained are significant or not. Such measures are called tests of significance and we shall look at them in the next section.

8.6 Tests of significance

In the previous section we have discussed how data can be analysed in a simple way to find out central tendencies and the ways in which we represent these figures using graphs and other visual aids. In this section, we shall continue with the analysis and see what tests of significance are.

In empirical research (research involving experimentation), we begin with a set of assumptions known as hypothesis (represented by H). Along with this, we also have a null hypothesis (represented by Ho). The data collected is subjected to analysis using tests of significance. The statistical results help us in rejecting the null hypothesis thus establishing or accepting the hypothesis. What are these tests of significance?

The simplest of these tests is known as t-test (for smaller samples of less than n = < 30) and z-test (for larger samples of more than n = > 30). In order to calculate this we need a measure called standard deviation (represented by SD). Standard deviation is the square root of the ratio of average of deviations. We will look at an example and to help you understand this.

There are five students in the class. Their scores are as follows:

A	36
B	78
C	54
D	42
E	40

Sample	Raw Score	Deviation from the mean	Square of deviations
A	36	36 – 50 = – 14	256
B	78	78 – 50 = + 28	784
C	54	54 – 50 = + 04	016
D	42	42 – 50 = – 08	064
E	40	40 – 50 = –10	100
Σx	250	Sum of Deviations = 0	Sum of Squares = 1220

SD = √ sum of squares / n

= √ 1220 / n = 34.92/5 = **6.984**

What does this mean? When the standard deviation is narrow, the dispersion of scores is evenly spread, and shows a better performance of the class as a whole. With narrow standard deviation and higher mean, the group's performance is assessed as co-efficient of variation. This is calculated as follows : CV = SD / Mean X 100

For the sample above CV = 6.984 / 50X 100 = 0.139 X 100 = 13.9

CV for the sample is 13.9.

The lower the CV better the class performance.

t- test which is a test of significance is calculated using the formula

t- test can be used with a single group or to compare the performance to two groups. The first one is called a single tailed test while the second one is called a two-tailed test. These are represented using bell jar graphs.

For a single group the formula used is :

$$t \quad \frac{X}{s/\sqrt{n}}$$

- $\bar{x}$ = Observed Mean of the Sample
- μ = Theoretical Mean of the Population
- s = Standard Deviation of the Sample
- n = Sample Size

For comparing the performance of two groups, the formula is:

$$t \quad \frac{x_1 \quad x_2}{\sqrt{\frac{s_1 \quad s_1 \quad s_1 \quad s_1}{n_1 n_2}}}$$

- $\bar{x}_1$ = Observed Mean of 1st Sample
- $\bar{x}_2$ = Observed Mean of 2nd Sample
- s_1 = Standard Deviation of 1st Sample
- s_2 = Standard Deviation of 2nd Sample
- n_1 = Size of 1st Sample
- n_2 = Size of 2nd Sample

Using the first formula you can calculate the t-test scores for the data given. The results obtained (computed values) need to be compared with the table values to find their significance. If the values are significant at 0.01 level, the results are said to be highly significant. This means that the experiment conducted would be correct 99 times out of 100. The results could also be significant at 0.05 level which means that values will hold good for 95 trials out of 100. Any value less that this is said to be not significant. (Please note: The table values are appended in all textbooks of statistics.)

Besides this, there are other tests of significance which we need during our research programmes and not for project work. These are ANOVA, (Analysis of Variance) and Chi Square. There are other measures as well which we shall discuss in the paper on Research Methodology (Value Added Course 2, Paper XX).

8.7 Summary

In this unit we have looked at some of the concepts related to data analysis. Having discussed what is data, how it is collected using a set of tools, we have begun with a note on how to organise data systematically to facilitate easy analysis. In order to do this, we need to understand a few terms in statistics which are also known as data parameters. We have discussed three important factors of central tendency Mean, Median and Mode and provided illustrations using a small sample. We have further looked at ways of analysing quantitative data using grids, graphs and other visual devices. Finally, we have looked at how qualitative data can be analysed and its significance established using certain simple tests of significance.

8.8 Review Questions

a. What are the different parts of data?
b. What do we mean by variables? How many types of variables are there?
c. What is meant by quantitative data?
d. What is meant by qualitative data?
e. Why should we organise data before analysing it?
f. What are the ways in which quantitative data can be analysed?
g. What are measures of central tendency?

h. Which measure of central tendency is more reliable than the others?
i. How do we represent the analysis of quantitative data?
j. What are tests of significance?
k. When do we use tests of significance?

7.9 Reading list

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Module – III

Unit–9 : Field Methods

Structure

9.1 Objectives

In this unit, you will learn

- How to prepare for a fieldwork
- Ethical issues in data collection
- How to apply methods during the fieldwork

9.2 Introduction

Before we plan to collect data for our research, project or writing the report, we need to learn how to carry out fieldwork. Many of us prefer to do aA field based study. This study can include collecting data on language, literature, ethnography or culture of a different community. For example, Iin English Language Teaching and Learning,

we work on Error analysis and action based research. Both of these require extensive data collection.

9.3 Methods

9.3.1 Choosing the resource person

You will hear many terminologies such as informant, language helper, data provider etc. (Crowley, 2007)for the people who gives us the data. We prefer the term resource person. Before going to the actual field, you may find a local person in your neighbourhood or at the university to do some work on thelanguage. This person may belong to your city or town. He or she might be a university student, a recent immigrant, a refugee, or a short-term visitor.

Selecting the right person, or people, to work with can sometimes be quite challenging. You can select a leader of the village or a learned person such as a scholar or a teacher. We need not stick to only one person at the time of data collection. A good resource person is someone who not only gives you data based on your questions but supplies additional information.

Task :

Ask your friend to be your resource person and collect some data related on COVID-19 pandemic.

9.3.2 Elicitation

According to (Crowley, 2007), Social scientists often approach their research projects with 'questionnaires'. Field researchers often do something like this, e.g. youwould start your data-gatheringby saying to somebody with whom you share a common language 'Howdo you say X in your language?'

If the major lingua franca of the area where you are working is Bangla, then you need somebody who speaks Bangla well enough withwhom you can use Bangla as your medium of elicitation, at least in theinitial stages. In a rural area, this means that your first language-helpers can be schoolteachers or other people who have completed morethan the minimal amount of formal schooling. If there is no major lingua franca, but people are essentially bi-tri lingual, in such cases, you can use any language that everyone is comfortable with. If the language is typologically more similar to the local language then it would be easier to study the target language. For example, Bangla and Oriya are typologically similar. If you use either of the two languages to elicit

the other, you are likely to get rich information. For Example, Oriya and Bangla both show a noun classifier system. From the questionnaire, you can directly elicit this information. If the language of the questionnaire and target language are typologically dissimilar we may miss important information. For example, English does not have separateinclusive and exclusive pronouns in the first person plural, but many of the Austro-Asiatic languages like Santhali, Ho, and Munda possess them.

9.3.3 Interview

Apart from the questionnaire, we use the interview method to collect data. In this method, we let the resource person talk moreabout a topic. Often stories and rituals of a community are elicited this way. Generally, we prepare some brief questions and ask them by taking turns. The interview might be spontaneous following an informal setup.

9.3.4 Picture book and / or audiovisual stimuli

Questionnaires are not full proof and certainly have limitations. Questions are mostly close ended and target particular aspects of the research project. Sometimes we miss important information about a particular topic due to the lack of knowledge of a researcher. We prefer an additional picture book or showing some video clips in order to elicit data. Here is a snapshot from a picture book.

Figure 1 : Elicitation through pictures

Task :

Prepare a short picture book and collect the response from a friend or a peer.

9.3.5 Text corpus

Apart from primary data collection, often we need to consult with the resources written previously. It is a good practice to find out previous researchers' work on a particular topic. This could help us avoid unnecessary repetition and explore new information. The written materials may include grammars, primers, corpus, songs, literature etc.

This method is also useful for a couple of reasons. Firstly, it helps us to cross-check our data and validate it. Secondly, it can work as additional material and help us analyze our data. On several occasions, due to certain limitations, we may not go to the field or interview a person. In such situations, corpus data can act as our primary resource.

Task

Consult an English corpus and find some elliptical constructions such as 'John went to the store and Mary did so too.'

9.3 Implications

Success and non-success

It might be the case that you fixed your objectives and goals from fieldwork but it did not turn out to be a fruitful one. There is nothing to get worried about. Remember fieldwork leads to an unpredictable situation. The reasons can range from finding the right person to the right place. For example: if we are working on a dialect or variety of a particular language we might not get a speaker in the area we travel. The informant or the resource person may give us wrong information or some other variety.

There is no denial that fieldwork is an excellent way to accomplish a research project. It is crucial for those who want to work on languages or folk literature. Even literature students often like to interview an author or a poet to bring insights about a particular text. Successful fieldwork requires considerable effort and a clear objective.

Academic social responsibility

Often by doing fieldwork, we can contribute to the public knowledge system. This

is also known as academic social responsibility. It is a misbelief that the knowledge generated in a university classroom cannot be relatable to the knowledge required to understand society. When we go to the field and sit with a resource person, many people or onlookers become curious to see what happens there. For example, when as outsiders we try to work on endangered languages, the community members begin realizing the importance of their language. Everyone in the community tries to speak and interact more in the language. So this kind of fieldwork contributes to the revival of a language.

9.5 Case Studies

Here I will be talking about a few practical examples of how to carry out fieldwork.

9.5.1 Fieldwork in physical mode

Fieldwork in physical mode requires preparation. First of all, we need to understand the place we will be visiting. It should be free from political disputes, conflicts or any contagious diseases as such. We must not select a time when there are chances of rainfall or heavy monsoon. We can divide the whole fieldwork into three stages i) pre-field preparation ii) during fieldwork iii) post fieldwork

Pre-field preparation

We need to find a contact person who can liaison between us and the inhabitants of the place. In a village normally the village head can do this job. In urban settings, we try to contact university students or teachers and their parents can become resource persons. We need to decide the dates based on certain things

a) The time should not be monsoon, because it would be the harvesting time and we may not get a lot of people to interview

b) No major festivals or religious events as people would be busy and away from home

c) Election time

d) Crop cutting season - unless we are working on songs for harvesting and crop festivals

We need at least a portable audio recorder (mobile phones are certainly the last option), a mobile phone with good video recording quality and for capturing images, notebooks and accessories as required. Some researchers prefer carrying their laptops so that they can create backups. I recommend carrying out an external hard drive and a flash drive.

During the field

Remember in the villages people wake up early and they need to be interviewed before they set out for work. In the urban set up of course people wake up late and they can feel irritated if you ask them to give data early in the morning. Sometimes, people would give you time after their work in the afternoon or evening. If you are working on socio-linguistic aspects do consider interviews from both women and men. People often do hyper corrections in the presence of a camera or recorder. You will also invariably notice that resource persons become conscious in front of electronic devices such as recorders. If possible pass on the mobile phone or the recorder to them or keep it a little away from them so that they can speak comfortably. Keep the audio and video recorder simultaneously on and write down the data in your notebook. Always mention the date, place, name of the participant/s, and topic on top of your page. I have discussed these in detail under section 10.2.2 on Metadata. This needs to be practised before every day even if it is with the same person on the same topic. The information collected here will help us organize the report as discussed in unit 11.

Revise the notebook and correct your handwriting if they are incomprehensible. Revisiting the notebook helps you to cross-check your data with the resource persons the next day. This would become impossible if you have come back from the field and hadn't checked your notebook during the field.

Post fieldwork

It is a good practice to prepare the backup of every day's recording after coming from the field. The backup can be created both online and offline. If you are carrying a laptop, you would like to transfer the files from the audio recorder and mobile device to a suitable drive on the laptop. You can also create a further backup on the external hard drive or a flash drive. This will ensure that even if your recorders malfunction or are lost, the data remains available.

If you donot wish to carry your laptop then you can create the backups online using a cloud service. Many people prefer google drive or dropbox. Make sure you carry a Wi-Fi dongle or some extra data recharge sothat you can directly transfer the files to your google drive or dropbox. Both of these have storage limitations on the free versions; it will be ideal if you have institutional access to google workspace. Dropbox also provides additional space at affordable rates. If you can't afford it create a new Gmail account and you will still get a free 15GB storage for creating backups.

After coming back from the field you need to install or run the necessary editing

and transcription software. For example, we can remove unnecessary noise, speech from an audio recording on Audacity. See the download page: https://www.audacityteam.org/download/. It is an open-source; freely available software and you will find lots of training videos on YouTube.

If you are working on songs, video recordings or interviews then I recommend you to download the ELAN software which is freely available here https://archive.mpi.nl/tla/elan. ELAN is also known as the Eudico Linguistic Annotator developed in Max Planck Institute for Psycholinguistics and specifically used for data annotation. It can easily generate an annotated speech corpus (a collection of texts).

9.5.2 Virtual mode

In case of a disaster, political conflict or Pandemic we may not be able to go to the field and collect data. However, these reasons should not stop us from collecting primary data on a particular topic. If we can't arrange for fieldwork via physical mode we can collect the data virtually. A virtual data collection task can be carried out by google meet, zoom, Microsoft teams, skype or even on WhatsApp. There are some issues that one should bear in mind though. Both the interviewer and the researcher must be good at handling the technology. Both must know how to create a meet link and send it to the other person. The internet connectivity should be good. The resource person must be told that s/he is going to be recorded for a certain amount of time. Ofcourse, there are limitations. First of all the resource person and you may not be familiar with each other beforehand. The resource person may fail to understand your questions. The internet might not work smoothly. As a result, while trying to analyze the data you will realize some parts of the recording are not recognizable. Sometimes it might so happen that the speaker forgot to keep the microphone close to his or her mouth and that has resulted in low level audio tracks. Remember some of the platforms like skype consume a lot of data and WhatsApp can work even on slow connections. People in rural settings may not be familiar with MS teams or ZOOM but they can manage WhatsApp or messenger calls.

9.6 Summary

In this unit, I have discussed various methods of data collection. We must consider the selection of the resource persons, suitable time and place for fieldwork. I have discussed the implications of fieldwork in the form of success non-success and academic social responsibility. You are also expected to keep note of Dos and Do nots during the fieldwork after going through this unit.

9.7 Review questions

1. What are the ethical issues involved in data collection
2. Should we ask personal questions such as drinking habits, relations etc.?
3. What should we do with the notebook?
4. How do we create a backup if there is no laptop during the fieldwork?
5. Have you heard about the software ELAN before?
6. Download the Audacity software and edit a sound file of your choice.
7. Which platform will you prefer for virtual fieldwork in the slow network area?
8. What is turn taking?
9. What is lingua franca?
10. Why do we need to be careful in choosing a resource person?

9.8 Reference and further reading

Crowley, T. (2007). *Field Linguistics A Beginner's Guide*. OUP.

Gippert, J., Himmelman, N., & Mosel, U. (2006). *Essentials of Language Documentation*. Mouton De Gruyter .

Unit–10 : Organizing and presenting data

Structure

10.1 Introduction

In this unit, we are going to learn how to arrange our data collected during fieldwork or survey. Here we will not only focus on the arrangement but also on how to present our data effectively.The objective of this unit target three elements

i) How to organize data

ii) How to present it

iii) How do we store the data

10.2 Organizing your data

After we start collecting data it becomes challenging to organize it. For example, data collected from multiple people on multiple days can be difficult to manage. For example, in the field we collect the data on hard copies and also note down salient observations in our note book. If there is a questionnaire, we need to number the pages. For multiple sets, we need to provide a serial number. Usually we use a

combination of alpha numeric characters. For example if you collect data from two different places name the questionnaires for the first place as A01 (first questionnaire in the first place) and B01 for the second place and likewise.

Now to save time and prevent errors later on, you should decide how you will name and structure files and folders Including documentation (or 'metadata'). The metadata will allow you to add context to your data so that you and others can understand it in the short, medium, and long-term as noted in (Cambridge, 2021). I will discuss more on metadata in section 10.2.2. Before that, we need to discuss naming and organizing the files.

10.2.1 Naming and Organizing Files

The first thing we need to remember is to be logical and consistent with the naming convention. If we choose a logical and consistent wayto organizeour files it allows us and others to easily locate and use them. We need to decide the naming convention at the start of a project.

An organized naming convention will make it easier to find and correctly identify your files. Further, it would prevent version control problems when working on files collaboratively. Arranging the files carefully will save us time and frustration by helping everyone find the desired files.

How should we organize files?

We may work on a stand-alone computer, or a networked drive, the need to establish a system that allows us

- to access your files,
- avoid duplication,
- ensure that your data can be backed up,

A good way to begin this process is to develop a logical folder structure. The following methodology can be useful.

(1) Use folders - group the files within folders so information on a particular topic is located in one place

(2) Name folders appropriately -we need to name folders after the areas of work to which they relate and not after individual researchers or students.

(3) Be consistent - when developing a naming scheme for your folders it is important that once you have decided on a method, you stick to it. If you can, try to agree on a naming scheme from the outset of your research project.

(4) Structure folders hierarchically - start with a limited number of folders for the broader topics, and then create more specific folders within these

(5) Separate ongoing and completed work - as you start to create lots of folders and files, it is a good idea to start thinking about separating your older documents from those you are currently working on

(6) Try to keep the folders inside a drive. Don't keep the folders on the desktop. In case your computer crashes, the desktop and downloads folders are the first ones to get affected.

(7) Backup - ensure that your files, whether they are on your local drive, or a network drive such as googledrive, are backed up. Keep the back up on an external hard drive

(8) Review records - assess materials regularly or at the end of a project to ensure files are not kept needlessly. Put a reminder in your calendar so you do not forget!

What do I need to consider when creating a file name?

There are two principles we need to keep in mind. One is the file name has to be consistent and the other is it should be easily retrievable. Let us discuss some of the conventions.

(1) Vocabulary - choose a standard vocabulary for file names, so that everyone uses a common language. For example - *ConferenceELT* without any space or underscore.

(2) Punctuation - decide on conventions for if and when to use punctuation symbols, capitals, hyphens and spaces. It is recommended that we should not use these symbols like * : \ / <> | " ? [ ] ; = + & £ $. If we use them, we can find difficulties in opening them.

(3) Dates - if you want to use dates always follow YYYY-MM-DDin this order. This helps in easy searching.

(4) Order - confirm which element should go first, so that files on the same theme are listed together and can therefore be found easily. For example- ConferenceELT20140631

(5) Numbers - if you think you need to create multiple versions use double digits e.g. 01, 002, etc.

So in a nutshell the file name can be like ConferenceELT201406301 _01.

How should we name our files?

Often there would confusion because we will see various versions of a file on our computer. The problem might be more if two or three people work on a joint project. Without proper controls, this can quickly lead to confusion as to which version is the most recent. We can resolve it in the following way:

We need to practice to be able to use a 'revision' numbering system. Any major changes to a file can be indicated by whole numbers, for example, v01 would be the first version, v02 the second version. Minor changes can be indicated by increasing the decimal figure, for example, v01_01 indicates a minor change has been made to the first version and v03_01 a minor change has been made to the third version.

Suppose we have sent draft documents for amendments, upon return we should put additional information. For example, a file with the name datav01_20190916_SJ indicates that our teacher (SJ) has made amendments to the first version on the 16th of September 2019. We then need to add the amendments to version v01 and rename the file following the revision numbering system.

If necessary we can include a 'version control table' for each important document. This will contain the changes and their dates alongside the appropriate version number of the document. Some of you may include the file names themselves along with (or instead of) the version number. You can mark a file name as final once you are ready with the final draft of course. It is important to keep this information alongside the files we are going to work on.

In the next section, my discussion on metadata is going to assist you further.

10.2.2 Metadata

Just to make sure that we understand our data and others can recognize it with ease; we need proper documentation of the project. Metadata is the tool that helps us stay organized. Standardly, metadata is known as data about the data. The way we organize our data is considered metadata. For example, the easiest way to understand the metadata is behind every website there is a programmingpage.

Figure 2 Website

Figure 3 Page source containing Metadata

From the figures above you can easily see the difference in the user interface on the left hand side and the source page containing metadata on the right hand side.

As per (Gippert, Himmelman, & Mosel, 2006), we can classify the metadata into several categories such as cataloguing, descriptive, structural, technical and administrative.

1. Cataloguing - This is useful for locating data, e.g. languagecode, file ID number, recorder, speaker, place of recording, dateof recording, etc.

2. Descriptive - we also need to specify the kind of data found in a file, for example, abstract or summary of file contents, information about the knowledgedomain represented.

3. Structural - it is important to note that a few files should be organized in a particular way, e.g. that a certain text file is a bilingual dictionary.

4. Technical - We need to list information about the kind of software needed to view adocument, details of file format, and preservation data.

5. Administrative - Apart from (1-4), we need to provide background information such as a work log (indicatingwhen the files were last saved or backed up), records of intellectualproperty rights, moral rights, and any access and distribution restrictionsimposed by researcher and/or community.

Let me explain this by an example. Many of you use the VLC media player for songs and videos. It is an open source software and allows us to add metadata. Once we open the file on vlc and right click on it and navigate to information, a window pops up like the following.

Now you can see we can add information about the recording such as the title, name of the album, genre, publisher copyright etc. Once the information is saved, it can be viewed by others.

When and how do I include metadata?

Here let us inspect the ways we can document our data. Let me first talk about Embedded documentation.

10.2.2.1 Embedded documentation

In embedded documentation, information about a file or dataset can be included within the data or document itself. For digital datasets, this means that the documentation can sit in separate files (for example text files) or be integrated into the data file(s), as a header or at specified locations in the file. Examples of embedded documentation include :

- code, field and label descriptions

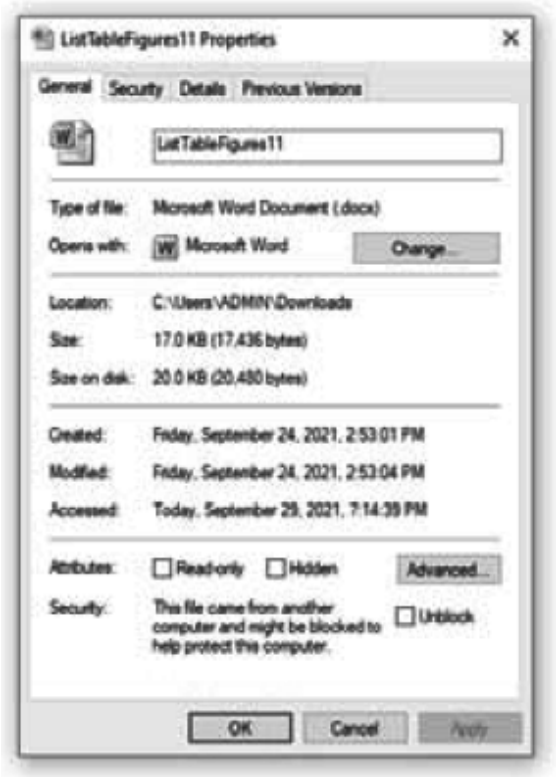
For example, we have already noted how to name the file robustly.

- descriptive headers or summaries

In every document, we can write a mini description in the header. How do we add a header in the doc file? Go to insert> header> type the desired text

- recording information in the Document Properties function of a file (Microsoft)

We can add information by right clicking on a document file. An example is shown below :



After making the changes do not forget to click on apply and then OK. Next, let us discuss supporting documentation.

10.2.2.2 Supporting documentation

We can also make a separate file that will contain the list of all the documents in a folder. This file will work as a catalogue. In this catalogue, we can give contextual information, explanation or any additional information. Examples of supporting documentation include :

- Working papers or laboratory books
- Questionnaires or interview guides
- Final project reports and publications

Review Task

Can you open a file on the vlc media player and add the necessary information as mentioned above?

10.2.2.3 Metadata standards

Here in this section, I will discuss two metadata standards used widely.Open Language Archives Community (OLAC) and the ISLE Metadata Initiative (IMDI), the former beingless detailed than the latter.

OLAC

OLAC stands for Open language archiving community. There are fifteen major components under it albeit I will discuss the ones relevant to our purpose.

Contributor : An entity is responsible for making contributions to the content of the resource. Examples of a Contributor include a person, an organization, or a service.

Coverage : The extent or scope of the content of the resource. Coverage will typically include spatial location or temporal period. Where the geographical information is predictable from the language identification, it is not necessary to specify geographic coverage.

Creator : An entity is primarily responsible for making the content of the resource.

Date : A date associated with an event in the life cycle of the resource.

Description : An account of the content of the resource. The description may include but is not limited to: an abstract, table of contents, reference to a graphical representation of content or a free-text account of the content.

Format : The physical or digital manifestation of the resource. Typically, the Format may include the mediatype or dimensions of the resource. The format may be used to determine the software, hardware or other equipment needed to use the resource.

Format.encoding : An encoded character set is used by a digital resource. For a digitally encoded text, Format.encoding names the encoded character set it uses. For a font, Format.encoding names an encoded character set that it is able to render.

Identifier : An unambiguous reference to the resource within a given context. Recommended best practice is to identify the resource by means of a string or number conforming to a globally-known formal identification system (e.g. URIs, ISBNs).

Language : A language of the intellectual content of the resource. Language is used for a language the resource is in, as opposed to the language it describes.

Publisher : We can note a publisher such as the name of a person, an organization, or a service.

Source : A reference to a resource from which the present resource is derived. For instance, it may be the bibliographic information about a printed book of which this is the electronic encoding or from which the information was extracted. We will discuss this more in section 10.2.3.

Subject : By Subject,we mean keywords, key phrases or classification codes that describe a topic of the resource.

Title : We need to provide a name given to the resource. Typically, a title will be a name by which the resource is formally known. A translation of the title can be supplied in a second Title element.

Now I will discuss the IMDI Metadata standard.

IMDI

IMDI is known as the Isle metadata initiative. You will find many of the fields either matching or corresponding to one of the items of OLAC as mentioned above. OLAC suggests metadata standards for the whole project. IMDI divides a whole project into various sessions. Each session should contain a set of metadata.

Session wise

Title : We need to give a full title for the session. For example - Interview1 from Mr. Roy on day 1

Participant : The full name of the participant needs to be recorded. For example, the persons, who were interviewed.

Country : The country where the session was recorded or originated.

Collector : The name of the person responsible for the collection of the session data.

Date : You can put the date when the primary data of the session was created

Description : We can give a brief description of the recording or the day when the questionnaires were elicited.

Format : Here we need to mention the type of the media file and the format. For example- audio file with .mp3 extension.

CharacterEncoding : Name of the character encoding used in the write up. For example, Times New Roman is a Unicode font. Some non-English languages may contain non-Unicode fonts.

Link : It is a Short code to identify the source file.

LanguageId : The language used for the data arrangement and writing.

Language code : A human understandable name of the language; Specifies a unique code to identify the language. For example, the ISO code of English is eng. Check out the big list here (https://www.loc.gov/standards/iso639-2/php/code_list.php)

Publisher : Name of the owner of the resource; The name of the publisher responsible for the distribution of the resource.

Rights : We need to specify if our recording or questionnaire contain personal information. In case, the interviewee does not want the data to be shared we have to state it here. Sometimes a community specifies that the information can only be shared with the community members in that case we have to abide by it.

So what we can essentially see here is that we can combine both the metadata set as per our requirement. IMDI helps us keeping a track of our data on daily basis. OLAC assists in organizing the whole project.

Review Question

Based on your project topic can you identify which metadata fields from OLAC and IMDI would be essential?

10.2.3 Managing References

Sometimes, a project work can continue for months. It becomes difficult to keep a track of which piece of information came from which source. In that case, it is important to take clear notes about your sources.

What is 'reference management'?

We need to cite all the materials we are going to use in our project. This can include books, journal articles, reports, census handbooks, grammars, dictionaries and websites. Reference management helps you keep track of your citations as you work, and partially automates the process of constructing bibliographies when it is time to publish.

I have discussed both citations and creating a bibliography in module 4. You need to consult that module when you start creating the bibliography in your Word document.

10.2.4 Organizing E-mail

Remember some of your data will have to be managed by email services. You may receive data through emails. Many of us want to store the raw data in email or on a drive. We also email the document files to our friends to create a backup. In all of these cases, we need data management. It is ideal to keep a consistent system in file naming. You can use dates in your file name for better retrieval.

We often organize emails by creating labels. For all the emails related to your project, you can create a label such as a project or my project. In case, you want to see all those files together you can simply click on that label. This will get you all the emails in one place.

In the next section, we shall continue our discussion on storage.

10.3 Storage of the data

There are two golden rules applicable in the case of storage of the data.

1. Where possible, only store what you need to keep.
2. Store crucial data in more than one secure location.

Can we use portable storage media (e.g. memory sticksor external hard drives)?

For sure, portable storage media such as memory sticks (USB sticks) are more risky and vulnerable to loss and damage. Often, computers or laptops might get infected by viruses or malware and you can lose the data stored on UBS drive. Donot rely on flash drives too much.

Flash drive or USB sticks are useful for :

- temporary copies/moving files e.g. taking a presentation to a conference
- secondary or backup copies
- some part of the data you can afford to lose

What is Backup?

All of us have experienced serious data loss at some point in time. It does happen periodically. The results can be grievous for your research project, or you personally. However, you can prevent data loss by following good backup practices.

Can I back up my data onto the cloud ?

As argued, cloud storage provides a convenient way to store, back up and retrieve data. We can use three different cloud options - OneDrive, Dropbox and Google Drive

among the most notable ones. If you are handling personal or sensitive data then you should check the cloud option is compliant with any data protection rules the data is bound by.

What is the best practice for backing up data ?

The best practice is you make two, or even three, back-ups of all important documents. It is not recommended that you rely ona networked file server. You need to store one back-up in a different location from the others (to keep your files safe in case of a fire, flood, burglary, etc.)

We can use multiple different types of storage media or storage media from different manufacturers (to protect against multiple media failures, e.g. a bad batch of discs, CDs and DVDs)

How should I choose what to back up and when ?

Taking Back-ups can be time-consuming.It can be expensive if your files take up a lot of space, or if you keep different files in different locations. We need to prioritize which files we would need in order to re-create or restore in the case of loss. This will depend on data which is crucial for work. You may choose to only back up certain data or to back up files you use every day more regularly than others. Important data needs to be backed up first. The data that changes regularly also need to be backed up on daily basis.

10.3.1 Data Preservation

In this section, let us discuss the necessity of data preservation. The term 'preservation' means ensuring something can still be seen or used over time. In the context of digital data, long-term preservation is the process of maintaining data over time. It indicates that they can be retrieved, understood, accessed, and used in the future.

Why does preservation matter to us ?

We may think that by saving our data in one or more places we have preserved it effectively. However,with digital technology evolving rapidly, digital data are at risk from one or more of the following problems :

- file formats might not be compatible with future software, and therefore unreadable
- even if a document can still be opened with new software, it may be altered to a degree as to no longer be understandable or reliable for continued research for example You get this warning with .doc files when you open them in the newer version of MS-office

- Storage media may have been degraded, scratched or broken, especially if they are portable, such as USB sticks.
- The files or data will not work in case there is no supporting documentation or metadata, or this has not been preserved correctly either.

What can I do to ensure my data are usable in the future?

While creating, organizing and storing your data you can take a few initial steps. You need to try and ensure your data remain useable and understandable for the future :

- Effectively document your data so that it can be understood in the future- read the section on metadata discussed in 10.2.2.
- Periodically move data to new storage media (drives degrade over time) - we recommend that use two USB drives or two external hard drives and use them subsequently.
- Keep more than one copy of data, and on a variety of storage media- multiple drives will become handy.
- Migrate data to new software versions, or use a format that can easily be imported to various software programs- try to use a licensed version or the latest version of the MS-office package. If you are using LibreOffice or open office keep it up to date. This is also applicable if you are using mac or Ubuntu based systems.

Also, it becomes important how to share your data with others.

How can I make it easier for others to re-use the materials that I produce?

One relatively simple way to make it easier for others to re-use tools, data, or other content that you produce is to add a Creative Commons license. Let us discuss each of the categories briefly here.

The Licenses are discussed from (About the licenses , 2017) from the website of creative commons. There are six types of licensing patterns.

1. AttributionCC BY

This license lets others distribute, remix, adapt, and build upon your work, even commercially, as long as they credit you for the original creation. This is the most accommodating of licenses offered. Recommended for maximum dissemination and use of licensed materials.

2. Attribution-Share AlikeCC BY-SA

This license lets others remix, adapt, and build upon your work even for commercial purposes, as long as they credit you and license their new creations under identical terms. This license is often compared to "copy left" free and open source software licenses. All new works based on yours will carry the same license, so any derivatives will also allow commercial use. This is the license used by Wikipedia and is recommended for materials that would benefit from incorporating content from Wikipedia and similarly licensed projects.

3. Attribution-NoDerivsCC BY-ND

This license lets others reuse the work for any purpose, including commercially; however, it cannot be shared with others in adapted form, and credit must be provided to you.

4. Attribution-NoncommercialCC BY-NC

This license lets others remix, adapt, and build upon your work non-commercially, and although their new works must also acknowledge you and be non-commercial, they don't have to license their derivative works on the same terms.

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Creative Commons licenses are often used for materials released online, but you can also include these in printed materials. The reason for discussing this at length here is you also should include proper citation and reference of any document in your project.

Now let us talk about the presentation of the data.

10.4 Presenting your data Presenting your data

Since we will be dealing with language data, I will focus on representing linguistic data here. If you have worked on Indian English or any other variety of English then you will be using the Roman script. For example:

1) Are we meeting today itself ?

However, in case you work in some other languages like Hindi, Telugu, Sindhi or Santhali, then you need to follow a proper convention.

Now how do we represent these languages in our ELT project reports? Some of you might know the International Phonetic Alphabet (IPA) for transcription. IPA is given by the International Phonetic Association for presenting any natural language data. In phonetics paper, you must have learnt how every vowel and consonant has got specific symbols. Here you can use those symbols as required.

If you don't follow IPA, that's ok too. In such cases, you may follow Roman orthography for representing the sounds. For example, consider the word pani 'water' used in various Indian languages.

How do we use IPA or Roman Transliteration?

Roman Scheme	Indic Scheme	IPA	Meaning
pAni	p???	pani	water

In the Roman transliteration scheme, we have decided to use A for a sound. Apart from the Roman script, you may come across an Indian transliteration scheme specially used in translated texts from Sanskrit. Here a superscripted bar sign represents longness as in a and i in pani. All the non-English words must be glossed which I have kept in the meaning.

In a running text, the non-English words must be italicized. For example,The Nepali sentence mero nam Kathryn ho 'my name is Kathryn' has basic SOV order.

If we are citing data from other languages we will follow the convention as below:

2)	u	ek^{h}domei	ramro	dekin	t$\int^{h}$c	(Nepali)
	3SG(M)	really	good(M)	look	HAVE(M)	

'He is really good-looking'.

We have to mention the language name in parenthesis. Every word must be separated by a tab. Every word needs to be accompanied by gloss. Finally, the translation in English must be given on the third line. This convention is followed by all researchers all over the world. Even if you are working with major or widely used Indian languages you should stick to this convention.

10.4.1 Preparing presentations

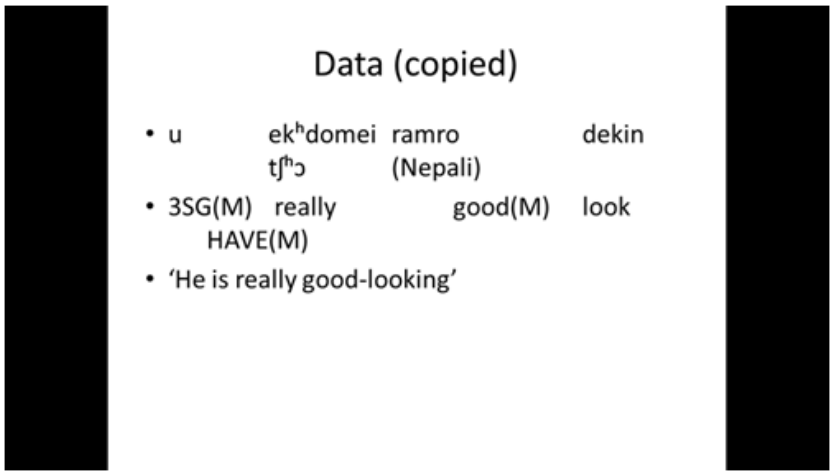
10.4.1.1 Powerpoint

I assume that you are already familiar with Microsoft PowerPoint presentations. Many of you might already have prepared PPTs for various reasons in the past. I would like to briefly mention salient points here.

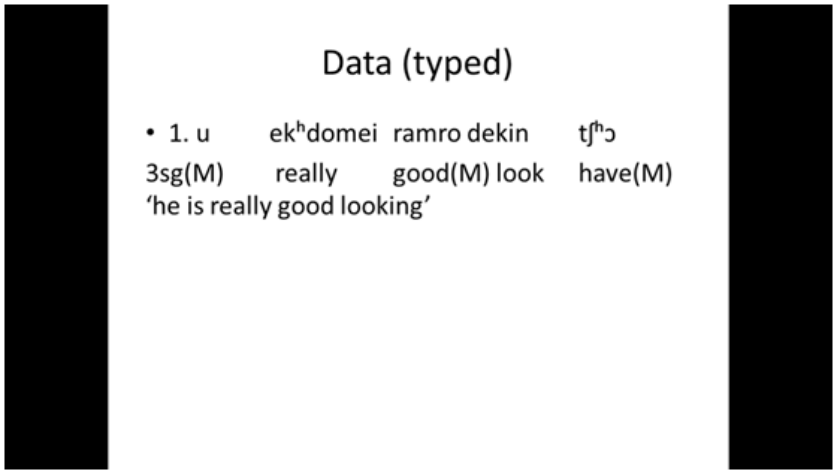
First of all the newer versions of MS office gives various themes for free. The new themes come with a larger size on the screen. You can download loads of free templates here

Obviously, you need to first decide which points you are going to put in a ppt. Many of us put too many things on slides and just read them while presenting. That is okay but not a great way. Smart students would put fewer points on slides and explain them by adding additional points while demonstrating.

If you plan to show linguistic data then I recommend that you type them directly into the PPT file. The reason is in a ppt we find it difficult to format the text once copied from a word document. Remember your data from a non-English language would contain three lines. It is easy to handle such data if you directly type it. For example,if you copy the data then it appears like this



And if you type the data and use the tab the slide looks like the following



Similarly, if your data contains the table, it is ideal to create the table in PPT rather than copying it from the doc file.

If your PPT contains a special font make sure that you convert it into pdf. This is particularly useful when you need to present the PPT online.

Always use a simple slide template with a white or light-coloured background. This is useful for better visibility.

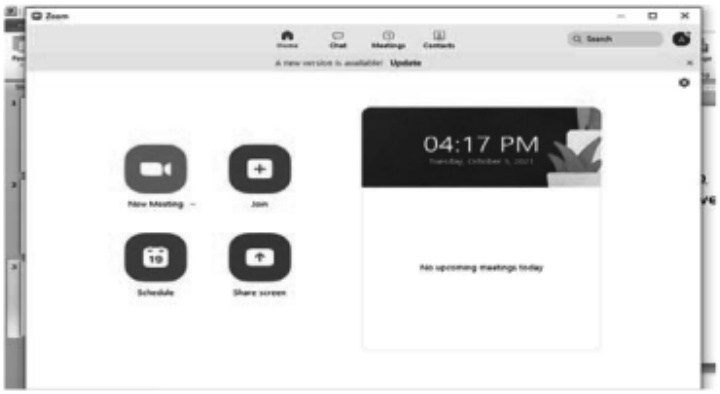
Do not forget to number the slides. If the audience has a question, they can refer to the slide.

Review Question

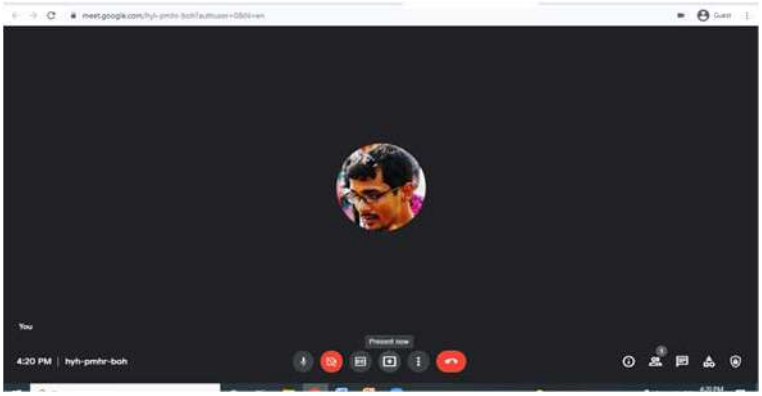
Prepare a small PPT as mentioned in the section above and convert it into pdf.

10.4.1.2 Share screen on Zoom or google meet

Often we need to present our data on virtual platforms. We will talk about the zoom and google meet here. On Zoom after logging in to a meeting, you will get an option of sharing the screen.



You can select the desired file you want to show your audience. On google meet, you will get the options present now



From there you can select any of the three options. Your entire screen> a window > a tab. After selecting the desired option, you can decide the file you would like to present. Again, it is recommended that you use the pdf version. In case of a slow Internet connection, PPTs might show a frozen screen. A pdf file works better.

10.5 Summary

In this unit, we have discussed how to organize the data. This includes how to name our data files, adding metadata. Managing our references and organizing emails are two important tasks at this level. Meanwhile, we also have learnt how to store and back up our data as required. Additionally, we have learnt how to present our data by using Microsoft PowerPoint. With the rise of virtual presentation modes, I have discussed zoom and google meet platforms for sharing our files online while demonstrating.

10.6 Review Questions

1. Why should we use YYYY-MM-DD in file naming?
2. What symbols should we avoid in file naming?
3. What is a cataloguing function?
4. What is a CC-BY NC licensing pattern?
5. Why do we need multiple backups?
6. What do we do for future data use?
7. What is data referencing?
8. Why do we use zoom and google meet?
9. How do we share files on google meet?
10. How does the labelling help in organizing emails?

10.8 Reference and further reading

About the licenses. (2017). Retrieved from https://creativecommons.org: https://creativecommons.org/licenses/

Bird, S., & Simons, G. (2001). The OLAC Metadata Set and Controlled Vocabularies. Retrieved from https://aclanthology.org/W01-1506.pdf.

Broeder, D., Gaiffe, B., Gavrilidou, M., Hinrichs, E., Lemnitzer, L., Uytvanck, D., ... Wittenburg, P. (Eds.). (2009). *Metadata Infrastructure for Language Resources and Technology*. MPI.

Cambridge, U. o. (2021). Organizing your data. Retrieved from https://www.data.cam.ac.uk/data-management-guide/organising-your-data. (2001). Mapping IMDI Session Descriptions with OLAC. Nijmegen: Max-Planck-Institute for Psycholinguistics.

Unit–11 : Drafting a Report

Structure

11.1 Objective

In this unit, we will learn how to prepare a project report. In the previous unit, we have gathered information on how to organize and present our data online. Here we would apply that knowledge into preparing a written document. I will be talking about the following :

1. Guidelines regarding the project
2. Format and style
3. Elements

A Project report is a written document you need to submiton the project work/ assignment carried by you. The report is a formal document. We have to present it with a lot of care and thought.

11.2 Introduction

Let me elaborate on how to formulate a report in this module. Before we finalize our write up on a particular project, we need to write several drafts and get them checked by our supervisor. In this module, I will explicate upon a certain guideline, writing the report and formatting it in subsequent sections.

11.3 Guidelines

We write a report is to inform the reader and to acquaint them with the results arrived at and the conclusionsreached. It conveys information in an impartial andobjective manner. The objective is to convey ideas and information and not toimpress the reader.

The following section provides a format and certain guidelines on how towrite a report for a project.

11.4 Formatting and style

We need to consider the word limit and the length specified by the university for this purpose. The size of the report should be such that it is easy to use and handle. Let me discuss salient properties.

(a) **Size :** Choose therecommended size of the report as A4. Go to page layout and from the dropdown size menu, you can select A4.

(b) **Space and page numbering :** The report should be typed in double space on one side of the page. How do we select spacing? From the home menu, we navigate to the paragraph and select the dropdown menu of the line spacing. Here we can select double spacing. All the pages should be numbered serially.

(c) **Margin :** put1" on all four sides of the sheet. You can use mirror margin in case you want to get it bound as a book .

(d) **Number of Copies :** Two or as specified by your university (one for the department, one for the library).

11.5 Elements (Body)

We need to keep the following elements in our report.

(i)	Cover	(vii)	Introduction
(ii)	Title page	(viii)	Main Text
(iii)	Declaration	(ix)	Conclusions and/or Recommendations
(iv)	Acknowledgements	(x)	Appendices
(v)	Abstract	(xi)	References
(vi)	Table of Contents	(xii)	Glossary

Let us discuss these elements in turn:

i) Cover

Usually, we need to prepare a cover page containing (i) the title of the report; (ii) the Name & ID No. of the student; (iii) the name of the institute/ university; (iv) the date of submission, etc.

ii) Title Page

On the title page, we need to provide the following information: the title ofthe report; the Name(s), ID No(s) and Discipline(s) of the students; the name of theorganization and the Institute, the name of the supervisor, year of submission.

iii) Declaration

We need to give a declaration on a separate page. For example:

"This report is submitted for the partial fulfilment of ….. examination and obtaining a degree in ….. This report has not been submitted anywhere before and it contains original work."

iv) Acknowledgements

On the third page, we need to thank all those persons who have helped us format and prepare this report. Customarily, inreports, we thank in the order given below:

-Supervisor / Mentor

-Head of the department,

-Other persons (from the organization and /or outside the organization, etc.)

-family members, friends, life partner

v) Abstract

We need to write a summary of the report. I suggest that we write the abstract at the end after we complete writing our report. This way

vi) Table of Contents

We need to create a table of contents for the report just like any book. The maindivisions, as well as the sub-divisions, are listed together with the number of the firstpage on which it appears. The page numbers for the matter preceding theIntroduction are given in small Roman Numerals i.e. (i), (ii), (iii) etc. From the introduction section, we use Arabicnumerals i.e. 1, 2, 3.

For establishing a suitable relationship among the sections and subsections we need to follow a single numbering scheme. Usually, schemes like decimalnumbering or letter numbering are generally followed. The scheme we follow is that of decimalnumbering.

1.
1.1
1.2
1.3
1.3.1
1.3.2
1.3.3
1.3.3.1

The words, phrases and sentences used for writing the topics andsub-topics should have a parallel grammatical construction. For this, an example isgiven below.

2. Causes of Food Problem
2.1 Defective Distribution System
2.2 Lack of Proper Storage Facilities
2.3 Hoarding
2.4 Natural Calamities
2.5 Floods
2.6 Drought

vii) Introduction

In the Introduction, we need to define the problem or the topic of the project. The Introduction, therefore, contains the purpose of writing the report and sufficient background material. One also includes the literature surveyed to present the reader with a clear picture of the projectwork. A paraphrased outline of the work should also form a part of the Introduction.In the Introduction of a report,you willdiscuss the scope and thelimitations of the work. Generally, for a project report, an Introduction can be covered within a couple of pages.

viii) Main Text

The main text runs into many sections, sub-sections and sub-sub sectionsunder different headings and sub-headings. We need to number and phrase the sections appropriately. In order to maintain consistency, we insist you follow the same pattern as given in the table of contents of the report.The main text contains the discussion on the experimental work done or thedata collected, the survey done at the field, a description of activities, analysis and the resultsobtained. It also includes illustrations and interpretations. This is the main body ofthe report. All illustrations (graphs, diagrams, tables, figures, etc.) should alwaysbe accompanied by a number and an appropriate title. This helps the evaluators and readers tounderstand the illustration in a better way. It also helps you to refer to thesein the subsequent discussion.

ix) Conclusions and Recommendations

We derive the conclusions and recommendations from the discussions andinterpretations of the results obtained. For example, we present the statistics of language vitality on a given language and based on the obtained data we conclude if the said language should be considered safe or vulnerable. It would be helpful to the reader if otherpossibilities pertaining to the stated conclusions and recommendations are alsodiscussed. The purpose of the conclusions is to draw the attention of the readerto significant findings. Sometimes conclusions contain a very brief summary ofthe main discussion. We can also make recommendations which suggest ways and means of bringingabout improvement to the present work.

x) Appendices

The contents of an annexure are those, which corroborate thematter given in the main text. The elements which are essential albeit diverting the attention of the reader from the main problem, are generally placed in theAnnexure. Given below are some items, which normally form a part of theAnnexure. (a) Calculation sheets; (b) lengthy derivations of mathematicalformulae; (if that is not the project itself) (c) supplementary

details of instructions;(d) flow charts; (e) computer programmes; (f) questionnaires & interview sheets;(g) large maps; (h) the nomenclature; etc.

It is for you to decide, what matter would be placed in theAppendices according to the nature of the project work and problem definition. It is not mandatory to build an appendix.

xi) References

You need to make note of all the references to books, journals, documents, web site links that are required to be cited in your report. These are listed in the section called References. I will elaborate on how to cite work and list the reference here. For example: In an interview with Wiktor Osiatynski in 1984, Noam Chomsky expressed his views on language and culture. The citation format can be Chomsky as cited in Osiatynski (1984) when it appears in your report. In the reference section, the entry must appear in the following manner (as per APA style). The style sheets are discussed in module 4 in detail.

- Osiatynski, W. (1984). On language and Culture in Contrasts: Soviet and American Thinkers Discuss the Future. Noam Chomsky was interviewed by Wiktor Osiatynski. McMillan.pp. 95-101.

xii) Glossary

Sometimes in a report, we provide a Glossary. It is the list of technical words and terms used by the author in his report. Itnormally includes the meaning of the word/ term and the page no(s) where itoccurs in the text of the report. It is not mandatory but helps the reader to refer to key concepts of your report.

11.6 Writing the Report

In this section, I will give a focus on the process of writing the report. (The Writing Center, 2021) notes that the following guidelines can be used while writing the report:

11.6.1 The first draft

While preparing the first draft, take reasonable care in the choice of words andsentence structure. We need to choose simple and familiar words and phrases. Instead of passive structure try to use active sentences.

1) Write smaller sentences instead of long ones with several clauses—

In academic writing, the best practice is to write mono clausal sentences. Subordinate

structures such as if you come I will go or coordinate structure such as John went to the store and Mary went to the room.

2) Avoid unnecessary words and phrase

Often students of literature and social sciences tend to write an elaborate introduction. There is a tendency of writing extra things in order to make the writing impressive. Note that length doesnot determine quality. We need to avoid unnecessary illustrations.

3) Avoid repetition and redundancy

There is a tendency to repeat things and create unnecessary paraphrases. Both these things should be avoided. For example, The sun rises in the east... and after a paragraph, someone writes 'it is not an unknown fact that the sun rises from the east side.'

The draft of the report should be given to the faculty and also to theprofessional experts. If you don't find an expert consider sending it to a friend who can check it for you.

11.6.2 Second draft

In light of these corrections and suggestions, preparethe second draft and ensure that it is in the desired format and structure. On many occasions, the university or a journal recommend a particular style sheet; you are advised to stick to that guideline.

Now I will sketch out the title page of the report.

Example A

A REPORT

ON

(Title of the Project in Capital Letters)

BY

Name(s) of the ID.No.(s)

Student(s)

_____ _____

_____ _____

_____ _____

AT

(University Name and Place)

(Month, Year)

Example B

A REPORT

ON

(Title of the Project in Capital Letters)

BY

Name(s) of the ID.No.(s) Discipline(s)

Student(s)

_____ _____ _____

_____ _____ _____

_____ _____ _____

Prepared in partial fulfilment of the

MA in English Course

AT

(University Name and Centre)

(Month, Year)

11.6.3 Third draft

If time permits, you can write a third draft and show it to your supervisor. This can also be considered as the final draft if further changes are not required. In the first draft, the supervisor looks at the content whereas in the second and third drafts s/he would expect that you format the report as per the stylesheet.

11.7 Summary

In this unit, you are expected to learn how to formulate the drafts of a report. We have talked about essential components of a report along with some optional elements. Depending upon the time and scope, you are supposed to develop a second or a third draft of the report before submission. Proper referencing style and format should be followed throughout. You need to learn how to avoid repetitions and tautological expressions while writing.

11.8 Review Questions

1) Why is referencing important?
2) What is the necessity of a glossary?
3) Is appendix mandatory for a report?
4) What isa common mistake one should avoid in the first draft?
5) Prepare the title page of a sample report either following example A or B
6) What is the difference between title and cover?
7) How do we cross-reference in our reports?

11.9 Reference and further reading

Cambridge, U. o. (2021). Organizing your data. Retrieved from https://www.data.cam.ac.uk/data-management-guide/organising-your-data.

KU writing Center. (2021). Editing and Proofreading. Retrieved from https://writing.ku.edu/editing-and-proofreading.

The Writing Center. (2021). Editing and Proofreading. Retrieved from https://writingcenter.unc.edu/tips-and-tools/editing-and-proofreading/.

Unit–12 : Editing and Finalizing the Report

Structure

12.1 Objective

In this unit, our objective is to understand-

a) The distinction between editing and proofreading.
b) Formatting
c) Content and overall structure
d) Organization of the report at the final stage

12.2 Introduction

In this unit, we will discuss how to edit and finalize the report for our project. The editing process can be divided into two different processes namely formatting and proofreading. Additionally, we will also take up the issue of organizing the final report.

12.3 Editing and Proofreading

In (The Writing Center, 2021), the difference between editing and proofreading has been elaborated.

Is editing the same thing as proofreading?

Writers sometimes use editing and proofreading interchangeably; however, each is a different step in the writing process. Editing typically involves a more in-depth examination of the document and can sometimes result in substantial changes in order to improve the overall quality of the work. On the other hand, proofreading comes later in the writing process, once the larger edits have been made. Editing is usually more concerned with surface-level corrections, such as checking grammatical accuracy and fixing any typing errors. Whether you are editing or proofreading, each is valuable to improving the overall quality of your document.

When you edit, become a critical reader of your document. You can do that by placing time between yourself and the document. When you return to it, you will bring the eyes of a reader rather than of a writer. In addition to using your eyes differently in order to re-see your document, listen to it. Sometimes what may look fine on the page sounds awkward to the ear. Read your paper out loud. This practice is especially important if what you have written will later be presented aloud.Many people use the terms interchangeably albeit editing and proofreading are two different stages of the revision process. Both demand close and careful reading, but they focus on different aspects of the writing and employ different techniques.

First of all, we need to distance ourselves from the text. It becomes hard to edit or proofread a paper that you have just finished writing. It is still too familiar, and you tend to skip over a lot of errors. Put the paper aside for a few hours, days, or weeks. Meanwhile, start looking at it. Perhaps take a stroll and clear your head of what you've written. Then you can take a fresh look at the paper and see what is really on the page. I also recommend that you send the paper to a friend. Believe it or not! Someone who is reading the paper for the first time comes to it with completely fresh eyes.

We have to decide on a medium that lets us proofread most carefully. Some people like to work right at the computer, while others like to sit back with a printed copy that they can mark up as they read. Often, altering the size, spacing, colour, or style of the text may trick your brain into thinking it's seeing an unfamiliar document, and that can help you get a different perspective on what you've written.

Find a quiet place to work. Don't try to do your proofreading in front of the TV or while you are playing a game on your mobile. Find a place where you can concentrate and avoid distractions.

If possible, do your editing and proofreading in several short blocks of time. If you fall short on time, you may wish to prioritize. Make sure that you complete the most important editing and proofreading tasks.

12.3.1 Process

You probably already use some of the strategies discussed below. First of all, don't rely entirely on spelling checkers. Grammarly or the inbuilt spell checker can be useful tools but they are far from foolproof. Spell checkers have a limited dictionary, so some words that show up as misspelt may really just not be in their memory. In addition, spell checkers will not catch misspellings that form another valid word. For example, if you type "your" instead of "you're," "to" instead of "too," or "there" instead of "their," the spell checker won't identify the error.

Grammar checkers can be even more problematic. These programs work with a limited number of rules, so they can't identify every error and often make mistakes. They also fail to give thorough explanations to help you understand why a sentence should be revised. You may want to use a grammar checker to help you identify potential run-on sentences or too-frequent use of the passive voice, but you need to be able to evaluate the feedback it provides.

Proofread for only one kind of error at a time. If you try to identify and revise too many things at once, you risk losing focus. Your proofreading will be less effective. It's easier to catch grammar errors if you aren't checking punctuation and spelling at the same time. In addition, some of the techniques that work well for spotting one kind of mistake won't catch others.

Read slowly, and read every word. Try reading out loud, which forces you to say each word and also lets you hear how the words sound together. When you read silently or too quickly, you may skip over errors or make unconscious corrections.

Separate the text into individual sentences. This is another technique to help you to read every sentence carefully. Simply press the return key after every period so that every line begins a new sentence. Then read each sentence separately, looking for grammar, punctuation, or spelling errors. If you're working with a printed copy, try using an opaque object like a ruler or a piece of paper to isolate the line you're working on.

Circle every punctuation mark. This forces you to look at each one. As you circle, ask yourself if the punctuation is correct.

Read the paper backwards. This technique helps checkthe spelling. Start with the last word on the last page and work your way back to the beginning, reading each word separately. Because content, punctuation, and grammar won't make any sense, your focus will be entirely on the spelling of each word. You can also read backwards sentence by sentence to check grammar; this will help you avoid becoming distracted by content issues.

The proofreading process becomes more efficient as you develop and practice a systematic strategy. You'll learn to identify the specific areas of your own writing that need careful attention. Ask these questions during drafting the paper.

I. Are you being consistent with the tense? We use simple present, simple past and present perfect in most of our academic writing.

II. Are there sentences that seem way too long or too short? Check if you have tried to put too many arguments in a sentence. Sometimes we miss adding a complementizer such as that, if or whether in between the clauses.

III. Do the subjects and the verbs agree? Often we use wrong number agreement in case of coordinate noun phrases e.g. the man in the natty suit and the director goes to school.

IV. Are the pronouns clear to the reader? Be careful with the use of anaphoric expressions such as herself and pronoun her.

V. Is the voice appropriate for the audience? We prefer an active voice in academic writing; sometimes middle voice might become appropriate such as 'this book reads well.'

Watch out for misspellings and homophones. The spell check function may not identify 'by' when you meant 'buy'. Don't depend on the word processor; the spell checker is not a proofreader.Now edit for punctuation. Pay special attention to quotation marks, commas and semi-colons, spelling, and grammar. Carelessness undercuts your credibility and casts doubt on the quality of your work.

Check the citations again. Make certain that all directly quoted information or ideas that are not your own are cited appropriately for the assignment.

Finally, if you can, ask someone else to read your paper to you out loud so you can hear for yourself how it sounds. Remember, even professional writers have someone else's help with this part of the writing process.

12.4 Formatting

Apart from editing and proofreading, take a careful look at the formatting of your work. Does your paper follow the prescribed guidelines? Are your in-text citations formatted properly? We have guides on the three most popular citation styles : APA Format, Chicago Format, and MLA Format. You can refer to Unit 15 of Module 4 on how to format your paper according to these stylesheets.

Unless you are instructed otherwise by your institution, arrange your paper in this order:

- **title page**

The title page contains the title of the report, an additional title or a subtitle, the Name of the researcher, year of submission, and name of the university.

- **abstract**

An abstract contains a brief description of the project report. The length can be 250-400 words. Some people also add 4-5 keywords.

- **outline**

Many institutions demand an outline of the report. Here one needs to write salient key features of the report.

- **Body**

This is the main matter of the report. The font size and spacing need to be uniform throughout.

- **appendix**

A report may contain an appendix comprising of a questionnaire, some mathematical calculation or computer programming.

- **explanatory endnotes**

One can add a colophon or supply additional material as required.

- **works cited, reference, or bibliography**

Every work that has been cited needs to be listed under the reference.

12.5 Working on content and structure

There is no single organizational pattern that works well for all writing across all disciplines. The organization depends on-

- what you are writing,
- who you are writing it for, and
- Where your writing will be read.

In order to communicate your ideas, you need to use a logical and consistent organizational structure in all of your writing. We can think about the organization at the global level (your entire paper or project) as well as at the local level (a chapter, section, or paragraph). For a report, this means that at all times; the goal of revising is to consciously design your writing projects to make them comprehensible for the readers. In this context, you as the writer are always responsible for the reader's ability to understand your work. A good goal is to make your writing accessible and comprehensible to someone who just reads sections of your writing rather than the entire piece.

The editing process begins as soon as you finish your first draft. You revise your draft to see, for example, whether the paper is well-organized, the transitions between paragraphs are smooth. Your evidence really corroborates your argument. You can edit on several levels as follows

12.5.1 Content

Before further editing, you need to consider if you have done everything the assignment requires? You need to give examples or evidence in favour of claims. See if you have answered all the objectives evoked in the first place. Have you supported each point with adequate evidence? (For additional tips, see our handouts on understanding assignments and developing an argument.)

12.5.2 Overall structure

Does your paper have an appropriate introduction and conclusion? Check if you have clearly mentioned the introductory parts in your report. Consider how each paragraph in the body of your paper is related to your thesis? One way to check the structure of your paper is to make a reverse outline of the paper after you have written the first draft.

12.5.3 Coherence

Does each paragraph have a clear topic sentence? For example : In this section, we are going to discuss the reasons for language endangerment. Does each paragraph stick to one main idea? In this case, the paragraph will clearly ponder upon the endangerment issue. Sometime after the first read, you will figure out that some more sentences may be required to illustrate the idea.

12.5.4 Clarity

Have you defined any important terms that might be unclear to your reader? For example, if you are describing language attitude, then include the attitude of male vs. female and older vs. Younger generation. Add the relevant definitions from the sociolinguistic literature. Ask yourself; is the meaning of each sentence clear? Sometimes it is not clear what each pronoun (he, she, it, they, which, who, this, etc.) refers to? Avoid using the words you find in the thesaurus albeit aren't part of your normal vocabulary; you may land up misusing them.

As you edit at all of these levels, you will usually make significant revisions to the content and wording of your paper. Keep an eye out for patterns of error; knowing what kinds of problems you tend to have will be helpful, especially if you are editing a large document like a thesis or dissertation. Once you have identified a pattern, you can develop techniques for spotting and correcting future instances of that pattern. For example, if you notice that you often discuss several distinct topics in each paragraph, you can go through your paper and underline the keywords in each paragraph, then break the paragraphs up so that each one focuses on just one main idea.

12.6 Finalizing

This module provides strategies for revising your writing to assist in finalizing the report. We will first talk about the Whole-Essay Structure. According to the online writing lab, (Purdue University, 2021)IMRAD, the organization of a report varies across and within disciplines, usually based on the genre, publication venue, and other rhetorical considerations of the writing. We can describe a piece of academic writingby the acronym IMRAD (or IMRaD): Introduction, Methods, Results, and Discussion. This structure is common across most of the sciences and is often used in the humanities for empirical research. This structure doesn't serve every purpose (for instance, it may be difficult to follow IMRAD in a proposal for a future study or more exploratory writing in the humanities). In such cases, we need to modify it to fit a particular situation. Let us elaborate on the IMRaD structure here.

Introduction

Here we need to explicate the purpose of the study.We may start with a few research questions. We need to understand the necessary background information that would assist the reader to understand and contextualizing the study. Some researchers include their literature review section as part of the introduction. Others put the literature review as a separate section.

Methods

It is important to mention the methods used for the study. If you have interviewed people, indicate it. If the study included participants, make a profile of them.

Results

This section describes the data. We discuss things such as the result of our experiments (or, if the research is not experimental, what did we learn from the study)?

Discussion

This section places the data within the larger framework of the subject. We need to elaborate on the implications of the result. Do the results agree or disagree with other literature cited? Often, we elicit some further questions to be taken up for future research.

Depending on your area, this may be the structure you can use in your writing. Itcan serve as a base that you can follow. However, you should always check to see what's expected of you in a given situation; this might mean talking to the professor for your class, looking at a journal's submission guidelines, reading your field's style manual, examining published examples, or asking a trusted mentor. Every field can be a little different.

Outlining & Reverse Outlining

One of the most effective ways to get your ideas organized is to write an outline. As you make your outline, think about all of the concepts, topics, and ideas.You will need these in accomplishing your goal for the report. This can also include important citations and key terms. Write down each of these, and then consider what information readers will need to know to understand the research questions. Try to arrange your ideas in a way that logically progresses, building from one key idea or point to the next.

The other process is called Reverse Outlining. The reverse outlining comes at the drafting or revision stage of the writing process. After you have a complete draft of your project (or a section of your project), work alone or with a partner to read your project to understand the main points you have made and the relationship of these points to one another.

Signposting

We use signposting to orient the readers of our text. We call it signposting because this practice is like guiding road signs for a driver. It narrates to the reader where to go and what to expect up ahead. Signposting includes the use of transitional words and phrasing, and they may be explicit or more subtle. For example, an explicit signpost might say :

This section will cover language vitality and attitude.

A more subtle signpost might look like this:It is crucial to consider the impact of language contact on a linguistic community.

Regardless of the style of signpost you select, it's important to include signposts regularly. They need to occur most frequently at the beginnings and endings of sections of your report. It is often helpful to include signposts at mid-points in your project to remind readers of where exactly you are in your argument.

We shall now recollect what we have learnt from this unit.

12.7 Summary

First of all, we have learnt how to organize and format our papers. Try to keep the editing and proofreading processes separate. When you are editing an early draft, you don't want to be bothered with thinking about punctuation, grammar, and spelling. If you are worrying about the spelling of a word or the placement of a comma, you're not focusing on the more important task of developing and connecting ideas.

Proofreading is the final stage of the editing process. We focus on surface errors such as misspellings and mistakes in grammar and punctuation. You should proofread only after you have finished all of your other editing revisions. We know Content is important. But like it or not, the way a paper looks affects the way others judge it. When you have worked hard to develop and present your ideas, you do not want careless errors distracting your reader. It is worth paying attention to the details that help you to make a good impression.

If you know that you have an effective way to catch errors when the paper is almost finished, you can worry less about editing while you are writing your first drafts. This makes the entire writing process more efficient.

Have you used an appropriate tone (formal, informal, persuasive, etc.)? Is your use of gendered language (masculine and feminine pronouns like "he" or "she," words like "fireman" that contain "man," and words that some people incorrectly assume apply to only one gender? For example, some people assume "nurse" must refer to a woman.

Additionally, ask these questions.

- Have you varied the length and structure of your sentences? Do you tend to use the passive voice too often?
- Does your writing contain a lot of unnecessary phrases like "there is," "there are," "due to the fact that," etc.?

- Do you repeat a strong word (for example, a vivid main verb) unnecessarily?
- Have you appropriately cited quotes, paraphrases, and ideas you got from sources? Are your citations in the correct format? You can see the details of the citation pattern in unit 15 of module 4.

12.8 Review Questions

1) Is all of the information in your paper relevant to the assignment and/or your overall writing goal?
2) How and where does the author include a phrase, sentence, or short group of sentences that explain the purpose and contents of the paper?
3) How does each section of the paper provide a summary of what was covered earlier in the paper?
4) How does each section of the paper explain what will be covered in that section?
5) How do you use transitional words and phrases to guide readers through ideas (e.g. however, in addition, similarly, nevertheless, another, while, because, first, second, next, then etc.)?
6) What are the main points you are trying to make in a report?
7) What background information will your readers need to understand each point? What will novice readers vs. experienced readers need to know?
8) In what order do would you like to present your ideas? Most important to least important, or least important to most important?

12.9 Reference and further reading

KU writing Center. (2021). Editing and Proofreading. Retrieved from https://writing.ku.edu/editing-and-proofreading.

Purdue University, O. (2021). Organization and Structure. Retrieved from https://owl.purdue.edu/owl/graduate_writing/graduate_writing_topics/graduate_writing_organization_structure_new.html

The Writing Center. (2021). Editing and Proofreading. Retrieved from https://writingcenter.unc.edu/tips-and-tools/editing-and-proofreading/.

Module – IV

Unit–13 : Design of a Project Report

Structure

13.1 Objectives

After going through the unit, you will be able to :

- Learn how to compile a project report.
- Understand different types of research work
- Know about primary-data and secondary-resource

13.2 Introduction

In this unit, you will learn how to prepare a project report based on the topic you have decided to work on. We will first focus on certain aspects such as the objective of a project report, the structure and the components, andthen proceed on how to present data and content lucidly. Note, each of you might work on a different area which might require customization. We will try to articulate more on the basic structure and also bring in examples as necessary. Let us first talk about the aim of a project report.

13.3 Aim of a Project Report

The main objective of a project(How to Write a Structured Project Report) should be placed in the context of the degree you are studying. You need to integrate various aspects of the taught material and demonstrate your academic and research skills along with the design and implementation skills.

A project report provides you with the opportunity to conduct an in-depth study on a substantial problem to show individual creativity and originality. In case you get a supervisor for your project writing, take advantage of his/ her advice. Your supervisor or mentor will help you find a topic or an area in which you can work.

The next important aspect is to gather relevant materials for the project report,(A Short Guide to Writing Your Final year Project Report or MSc Dissertation, 2011)notes that most of the ideas and experience will come from your thought process. We recommend that you either use an excel sheet or a notepad to write them down. If you are working on a data-driven project, thenan excel sheet is always better as it helps you organize the data better than a doc file. A data-driven project can be of two kinds: primary data-driven and secondary data-driven. Primary data means a researcher collects his/her data based on a survey-based questionnaire or a Google form. Secondary

data means you are going to work on data collected by others such as census handbooks, gazetteers etc.

Now for background research,also known as literature review/survey, we need to identify potential books, journal articles, papers, documents, etc. A good project report should include the findings of existing research in that field. Two other components in this case are the earlier courses and the notes taken during the interactions with the supervisor.

Before you start writing the report, you need to decide on a particular stylesheet that you have to follow consistently throughout the body of the report. If the university has mentioned a particular stylesheet such as APA (American Psychological Association), Chicago manual or MLA style then you have to adhere to it. The details on how to use a style sheet are discussed in Unit 15.

13.4 Tips for choosing materials

While selecting the readings rely more on the journal articles and books. Often these materials contain original research based on facts and figures. Journal articles, papers and books are reviewed and published after careful revisions. On the other hand, electronic materials such as websites, blogs, and e-magazines are written based on personal opinions and may not be reliable always.

13.5 Template

Based on whether you decide to work on a primary data-driven project or secondary resources, we will talk about each one of them in turn.

You can follow the structure for your project if you are going to collect data on a certain topic. The topics may include Error analysis of English L2 or L3 learners by a university or school students, culture and language studies on indigenous communities or Child language acquisition.

Title Page
Abstract
Acknowledgements
List of Abbreviations
Table of Contents
Table of Figures
1. Introduction
2. Background study
3. Methodology
4. Design of experiment
5. Implementation/ data collection
6. Analysis
7. Conclusions
8. Future scope
Glossary
Appendices
References

In case your topic does not require data collection you can modify the structure as under. This would include areas such as critical discourse analysis of a text, the stylistic study of a poem or analyzing a corpus or implementation of software.

Title Page
Abstract
Acknowledgements
List of Abbreviations
Table of Contents
Table of Figures
1. Introduction
2. Background study
3. Methodology
4. Structure of the text/ corpus
5. Analysis
6. Conclusions
7. Future scope
Glossary
Appendices
References

Now let me discuss how to develop these sections in terms of your actual report.

13.5.1 Title page

The title page or the cover page needs to include the project title and the name of the author of the report. If you worked under a mentor or a supervisor,you must mention his/her name. Mention the name of the course such as UG final or PG final year. It is recommended that you mention the name of the university and the year in which you are going to submit the project.

13.5.2 Abstract

The abstract contains a summary of the report. It can be about half a page long. The objective of the abstract is to familiarize the reader with your work. The abstract will further interest them to go ahead with the details of the write-up.

13.5.3 Acknowledgements

It is usual to thank those individuals who have provided particularly useful assistance, technical or otherwise. It is customary that you acknowledge your supervisor and other faculty members who have motivated you for the project. In case your project is backed up by some financial resources you ought to mention that.

13.5.4 List of Abbreviations

It is also a convention that we provide a list of acronyms, abbreviated formsthat we have used in the project. Consider the list as below:

APA	American Psychological Association
BBC	British Broadcasting Corporation
PST	Past Tense
TOC	Table of Contents

It is recommended that you alphabetically prepare the list.

13.5.5 Table of Contents

This should list the main chapters, sections and subsections of your report. Try to avoid too many levels of subheading - three is sufficient. In Microsoft Word and LibreOffice there is a mechanism by which you can create the table of contents. We will tell you how to do it by using MS-word. Often, you would see doing manually will trouble you a lot. For example, if you enter the page numbers then during formatting the page numbers might change and your table of contents needs to be updated. However, if you chose the way weare suggesting here you won't have to worry about it.

To be able to create a table of contents we need to create some headings as required. We have randomly written some headings for my project as follows :

Figure 1 Selecting a style

Figure 2 Possible headings

Now from the home tab, we can select a multi-level list-icon which is next to numbering. We have chosen 1, 1.1., 1.1.1 heading styles. This means my chapter headings will be numbered as 1, 2, 3 etc. If we create a section under chapter it will show up as 1.1 etc.

For example, we can put two sections as objective and research questions in my introduction chapter. Of course from the boxes in the change styles we have to mark them as heading 2. This is shown as below :

Figure 3 Creating subheadings

Figure 4 Multilevel up to x.x.x

We can create subheadings as required shown on the right-hand side above. After the headings are developed we can now insert the table of contents in the place we need to do it. For this, we click on the References tab after the Insert tab and click on the table of contents.

Figure 5 Inserting TOC

Figure 6 Automated TOC

You will see that MS-word has created an automatic table of contents. To cross-check if the table of contents contains all the sections, we can select the Navigation Pane under the View tab. This navigation pane also helps us to go anywhere in the document in a quicker way.

13.5.6 Introduction of a Project

The introduction needs to begin with a clear statement of the report. It should introduce the topic and its scope. It should summarise everything you set out to accomplish, provide a clear summary of the project's background, relevance and main contributions. The introduction should set the context for the project and provide the reader with a summary of the key things to look out for in the remainder of the report. When detailing the contributions it is helpful to provide pointers to the section(s) of the report that provides the relevant technical details. It is useful to state the main objectives of the project as part of the introduction.

13.5.7 Background study

This is also known as noting down what has been done previously in that area. For example, if you are writing a project on Chomsky's Minimalist Program (1995) then you might need to summarize the earlier works of Chomsky such as Government

and Binding Theory (1981), Bare Phrase structure (1993) or later works by others such as Adger (2001), Lasnik, Uriagereka and Boeckx(2005) etc. The background section of the report should set the project into context and give the proposed layout for achieving the project goals. This could be written as a separate chapter if the project involvessignificant amount of groundwork. While referring to other pieces of work, you must cite the sources where they are referred to or used, rather than just listing them at the end.

13.5.8 Methodology

Depending upon your topic, your methodology will follow. At the onset, one needs to decide whether he/she is going to adopt the qualitative, quantitative or mixed methods as part of the methodology.

Qualitative approach

In (McLeod, 2019) we find a good description of both qualitative and quantitative approaches. Qualitative research involves the process of collecting, analyzing, and interpreting non-numerical data, such as language, attitude, and ethno cultural aspects. In qualitative research, an individual subjectively perceives and gives meaning to their social reality. Qualitative data comprises non-numerical data, such as text, video, photographs or audio recordings. This type of data can be collected using diary accounts or in-depth interviews. The data is analyzed using grounded theory or thematic analysis. A study based on grounded theory commences with a question, or just with the collection of qualitative data. Upon review, the researchers figure out the concepts and ideas emerging from the data collected. These ideas/concepts are explicated based on the data.

According to Denzin and Lincoln (1994), Qualitative research focuses on an interpretive, naturalistic approach to its subject matter. Qualitative researchers study things in their natural settings. They attempt to interpret phenomena in terms of the meanings people bring to them. Usually, Qualitative studies are conducted by unstructured interviews which generate qualitative data through the use of open questions. This allows the respondent to give a detailed view choosing their own words. Notice that qualitative data could be much more than just words or a piece of text. Photographs, videos, sound recordings and so on, can also be considered qualitative data.

13.7.2 Quantitative Approach

In Quantitative research, we follow the process of objectively collecting and analyzing numerical data. One uses this data to describe, predict, or control variables

of interest. The goals of quantitative research are to test causal relationships between variables, make predictions, and generalize results to wider populations. The variables could be age, gender, level of education, family income depending upon the discipline. Quantitative researchers aim to establish general laws of behaviour anda phenomenon under different contexts. In this kind of research, we assume a hypothesis and collect data to ultimately support or reject it. In the Quantitative approach, statistics help us to turn quantitative data into useful information to help with decision making. We can use statistics to summarise our data,describe patterns, relationships, and connections. On one hand, descriptive statistics assist us to summarise our data whereas inferential statistics are used to identify statistically significant differences between groups of data (such as intervention and control groups in a randomised control study).

In recent times, researchers are also taking a third approach known as mixed methodology. The mixed methodology involves combining the two approaches mentioned above. A hypothesis can both be proven or falsified by qualitative as well as quantitative approaches. On the other hand, even if you don't have a ready hypothesis, to begin with, you can organize your data both quantitatively and qualitatively. This way you can describe a phenomenon as to why children acquire Nouns before verbs. You can simply compare two languages such as Marathi and Indian English and come up with the same generalization.

13.5.9 Design of experiment and data collection

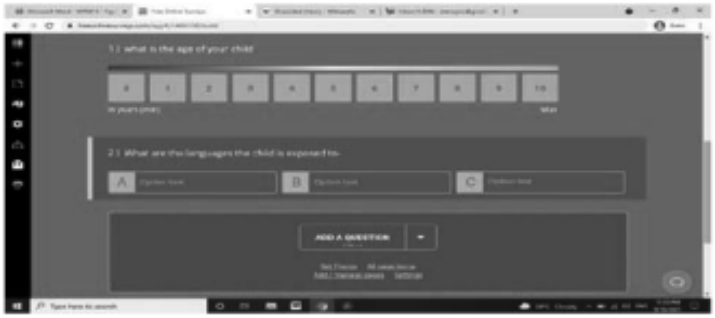
Those who plan to work on primary data need to go back to Module 3 on field methods. We have extensively discussed the details of conducting fieldwork and doing surveys for a research project. Here we will be talking about creating an online survey and simple word guessing task that can be designed in Microsoft PPT.

Online survey

Sometimes this is useful for several reasons. First of all, going to a field requires financial resources and time. Due to the lack of those, one can conduct an online survey. Secondly, for a pilot survey on a certain phenomenon, one may not require exclusive fieldwork and a data sample can be collected. Thirdly, an online survey can be sent to people across different regions and that way the data can be collected from a diverse area.

We will be talking about browser based platforms mainly online free survey creators such as freeonlinesurvey.com and googleforms for creating a survey. For the first one, you need to sign up on their website (https://freeonlinesurveys.com/app#/newProject) and then they giveoffer you two options whether you would want to create a survey or a quiz. Suppose you choose a survey then you have to name it.

For example,we have created a questionnaire on Child languages acquisition with a couple of questions.



Let me also show how we can create a quiz on the same website.

This way after creating the survey or the quiz, one can circulate it through email or WhatsApp and several other ways.

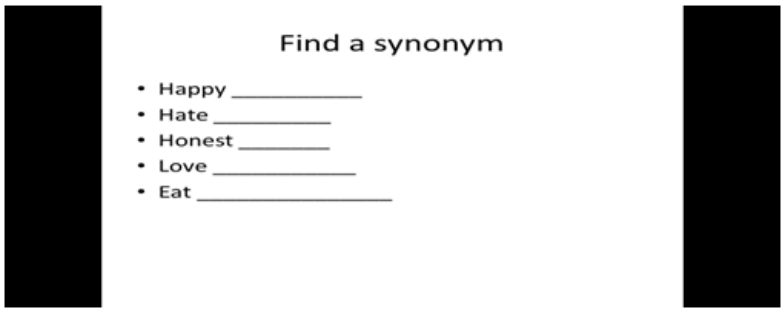
Now let me talk about google forms which are also a nice and quick way of creating a survey for your research purposes.

The prerequisite for creating a google form is that you need to have a google account. If you don't have a Google account you need to create it by visiting their website www.google.com. Once the account is created you can visit this page https://docs.google.com/forms/u/0/ and either choose a blank form or some predefined templates that are listed. For the present purpose, we will click on the blank template and create the questionnaire like under:

After creating the form it can be circulated through email, WhatsApp and shared on platforms like Facebook and Instagram. The responses are recorded in a google spreadsheet. This spreadsheet can be downloaded as a Microsoft Excel sheet or open office sheet. The advantage is that through google form we can collect a large amount of data and with the help of the spreadsheet, we can easily interpret the data.

13.8.2Word association task

This task may involve two smaller tests such as finding a synonym and an antonym for a given set of words.



The responses can be noted down and put in an excel sheet later.

Analysis

Excel sheet is an effective way of collecting data that involves variables. We will discuss this more in Unit 14 when we talk about how to use figures, tables and maps in the project report.

13.5.10 Structure of the text/ corpus

Before we start working on a corpus we have to choose the corpus carefully. First of all, we need to decide whether we want to work on an annotated corpus or an unannotated one. An example of a tagged corpus is the new iWeb corpus which can be found at https://www.corpusdata.org/iweb.asp.

Figure 7 iWeb corpus

If we notice, this corpus is tagged concerning part of speech. It gives us the total number of words from which we can calculate the frequency of any part of speech such as definite article the or indefinite article a, an or pronouns like him, her etc.

We may also come across untagged corpus such as below:

Figure 8 Untagged version of Brown Corpus

In this corpus, we get a large piece of text which can be analyzed stylistically. However, we need some basic metadata and normalize the text before we can proceed. For example, we need to know the year of publication, the author's name and the genera such as whether this is a newspaper article or a book review. In terms of normalization, there might be spaces in wrong places or wrong punctuations and some typographic errors which need a thorough revision.

13.5.11 Conclusions and Future Scope

In the conclusions, youshould list the things which have been learnt as a result of the work. For example, "Students find it difficult in terms of using she/he as a pronoun because in a large numberof Indian languages there is no gender distinction in the third person singular pronoun. Avoid tautological expressions like "We learned a lot about child language acquisition..." It is common to finish the report by listing ways in which the project can be taken further. This might, for example, be a plan for doing the project better if you had a chance to do it again, turning the project deliverables into a more polished end product.

13.5.12 Appendix

The appendices contain information that is peripheral to the main body of the report. Information typically included is things like parts of the code, tables, test cases, your interview questions, google form etc.

13.5.13 Glossary

Your report can include a few key terms mentioning their page numbers. Your reader might want to go back to those concepts in the places where you have discussed them. In such a case the glossary becomes useful.

13.5.14 Bibliography

This consists of a list of all the books, articles, manuals etc. used in the project and referred to in the report. You should provide enough information to allow the reader to find the source. In the case of a textbook, you should quote the name of the publisher as well as the author(s). AMost common weakness ofnoticed in many reports is anthe inadequate citation of a source of information. It's easy to get this right so that there are no excuses. Each entry in the bibliography should list the author(s) and title of the piece of work and should give full details of where it can be found.

13.6 Summary

After reading this unit, you will learn how to compile a project report. The unit has mostly focused on two kinds of research work, primary data-driven and secondary resource-driven. You should read and include previous works done on the area or topic you are going to take up. We have also learnt that we should choose journal papers, articles rather than personal blogs and magazines. Our analysis and findings would depend on how we have decided to create the questionnaire or design an experiment. Talking to a mentor or a senior and discussing the topic of research will be beneficial for us. It is also advisable that we go through some examples of project reports beforehand.

13.7 Review Questions

1. Write the differences between qualitative and quantitative researches?
2. What is mixed methodology?
3. What are the strengths and weaknesses of qualitative method?
4. What are pros and cons of quantitative research method?
5. How is observation useful in conducting a research?
6. What do we need to consider during an interview?
7. How well the research design fits the research questions?
8. How the research design could have been improved (within practical constraints) to improve the fit between research question and design?
9. Practical task : Create a google form and send it to your friends, record at least five responses.

13.8 References and Reading List

1. A Short Guide to Writing Your Final year Project Report or M.Sc Dissertation. (2011). Cardiff University.
2. Format_for_Internship_Report. (n.d.). Retrieved from http://www.gmrit.org.
3. How to Write a Structured Project Report. (n.d.). Retrieved from https://www.tifr.res.in/: https://www.tifr.res.in/~cccf/data/InternDocs/How_to_write_a_structured_Project_Report.pdf
4. McLeod, S. A. (2019). Qualitative vs. quantitative research. Retrieved from https://www.simplypsychology.org/qualitative-quantitative.html.
5. What is a project report. (2021). Retrieved from https://slite.com/learn/project-report: https://slite.com/learn/project-report

Unit–14 : Using Figures, Charts, Maps in a Report

Structure

14.1 Objectives

After going through the unit you will

- Learn how to put figures, images and tables in your report
- Know about automated processes of writing
- Learn how to accomplish a time-bound project

14.2 Introduction

This unit will focus on embedding figures, charts, tables and maps in a report. We will first talk about the objectives of incorporating such elements. The first section

will discuss the advantage of using multimedia techniques and secondly how automated processes will decrease the inconsistency in report writing.

14.3 Using Multimedia

Visual supports are an excellent way of presenting your point across or displaying information more clearly. Visual aids can break up the monotony of the report if it's a lot of copy , which will be a welcomed relief in the eyes of any reader. If you find it difficult to argue your point across, then look for an example of it online.

14.4 Automate processes

There are a lots of ways by which we can format your report in an automated way. For example, in the previous unit, we have talked about an excel sheet that helps us in arranging the data and perform analysis. In this unit, we will show how from an excel sheet youcan import tables. If required you can learn how to make the most of excel spreadsheets and tool integrations to seeifdata can be populated into your project report. You can create and customize a style sheet that will save you from unwanted changes in the document. You can also create a table of contents and bibliography automatically. These are the small time-saving hacks that will make your project reporting that much smoother in the future.

14.5 Figures, Pictures and Tables

In this section, we will discuss the role of figures and tables to organize and present your data. A table refers to data displayed in terms of a structure of rows and columns. Figures can include charts, graphs, diagrams, photographs, drawings, maps, blueprints, and so on. The sense is flexible, you are welcome to create new labels (and new lists in the front matter, and new text styles to handle that particular caption equivalent) for any type of image.

14.5.1 Best practices regarding Figures

We know that it is possible to flow text around an image, at this level let us adopt simpler approach that is less prone to causing errors and spacing/text?flow anomalies. (Sweet, 2017)suggests that Figures should always appear after the end of the paragraph in which they are first referenced. If the referencing paragraph ends high on the page, and there isn't enough space to fit the figure and caption together on that same page

then think of these alternatives. You can either leave the rest of the page blank or continue the text flow until you reach a natural paragraph end on that page. The figure should then be inserted at the top of the next page. Do not interrupt a paragraph, or worse, a sentence, to insert a figure.

14.5.2 Order of insertion

To minimize potential glitches with the list of figures, werecommend the following steps when inserting an image. Place your cursor on a blank line in the text, and navigate to insert? Pictures? Picture from File. You can download or arrange the pictures beforehand and put them in a separate folder so that you can easily locate them later. Select the image you wish to insert, and then click the Insert button.

Your cursor will appear to the right of the image; press Enter to create paragraph break and move to the line directly below the figure. Now you can right-click on the figure and select insert caption. Depending upon the type whether image or figure you can provide a suitable title. This way if you add more figures, the caption number will be automatically updated.

Keeping the figure attached to the caption as you write, your images may be pushed down the page, and occasionally become separated from their captions. There are a few ways you can prevent this - for example, you could place the figure and caption in a single table cell. To begin with, ensure that your figures have a consistent centred alignment and spacing, and always stay attached to their captions. Find any in?line figure in the document; click on the figure, or in the space to the right of the figure, and apply the style "Figure ? keep with the caption" to the image itself. Press Enter, leave your cursor on this new blank line and insert your caption label and text as normal.

14.5.3 Compress Pictures tool

If your folder contains large figures or just a lot of figures, you might want to use Word's built in image compression tool to reduce the size of your Word file. This way you would need less memory size to work with your file. Click on any image in the document; you will see the Picture Tools' Format tab open automatically in the menu ribbon. In the Adjust block to the left of the Picture Styles scroll menu, look for Compress Pictures, or an icon of a picture with arrows pointing inward at each corner.

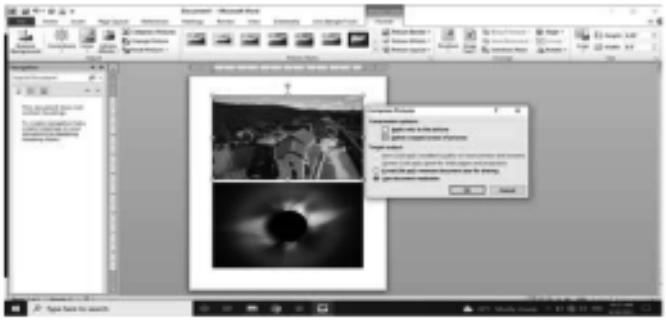
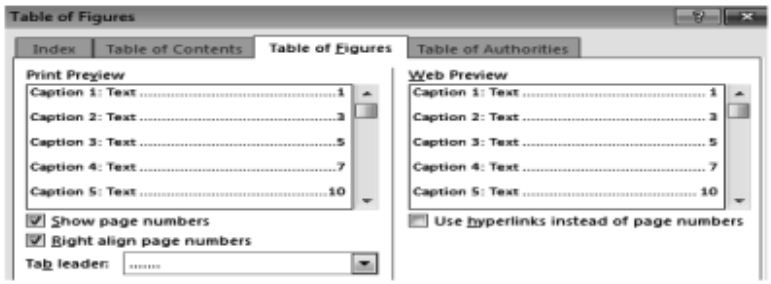


Figure 9 Compress Tools

In the compression option, you can direct the software whether to compress all pictures (recommended) or apply this change only to the selected image. To reduce file size and increase performance further, you can also delete any areas of the image that you cropped with Word's cropping tool. This will not affect the original file if you used the basic Insert ? Pictures tool, or copy and paste. If you used the Insert? Pictures? Link to File or the Insert and Link option, please test this function with a copy of an image rather than the original. Under the target output, you may select Print (220 PPI) or document resolution for the best balance of image quality and memory usage. Don't forget to save your file.

14.5.4 Creating a table of figures

The Figures list exists in the template; if you use the"Figure Caption" style to feed that list, you should be able to skip to the update section, next. If something goes awry with your list of figures, this is how you can re?create it. Navigate to the list of figures in the front matter, following the table of contents. You need to make sure that your cursor is on a blank line below the title, FIGURES. In the References tab, find the Captions group and choose Insert Table of Figures. In the Table of the Figures dialogue box :- Check Show page numbers-Check Right align page numbers - Uncheck Use hyperlinks o Tab leader = dot (.....)



Under Caption labels, choose None. In this case, we want our Figures list to include all figures in the appendices - searching by the label will only return figures in the main body of the text.

Click the Options button, check Style, and then select Figure caption as the style Word will identify and bring back to the List of Figures. Click OK to accept the changes, and then click on OK again to exit the dialogue. Don't forget to save the file.

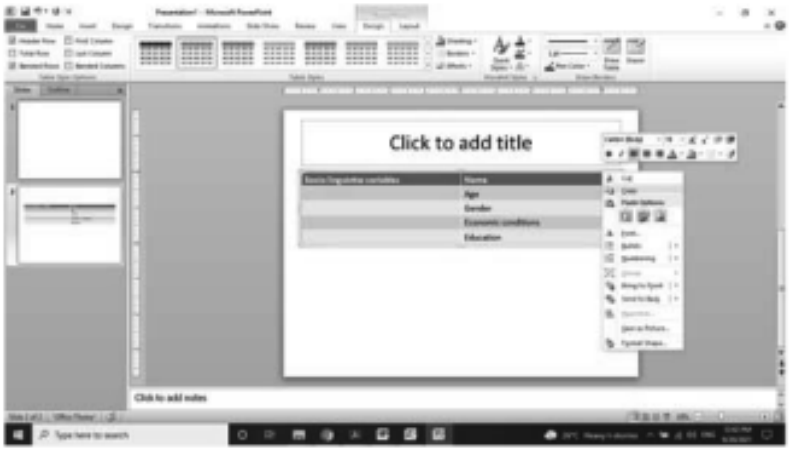
14.6 Inserting Table numbers and Titles

Like pictures and figures, Tables are typically placed after the paragraph in which they are first mentioned. Tables should not appear within a paragraph or a sentence. If you cannot fit the entire title and table set on the same page, refer to the continued tables instructions. Also, like the Figures, there is an order to inserting tables and titles to minimize potential errors.

First, you need to place your cursor on a blank line in the text; type the main title of the table in a standard sentence or title style capitalization, then press Enter. On the second line, navigate to Insert → Table.

Figure 10 Insert a table

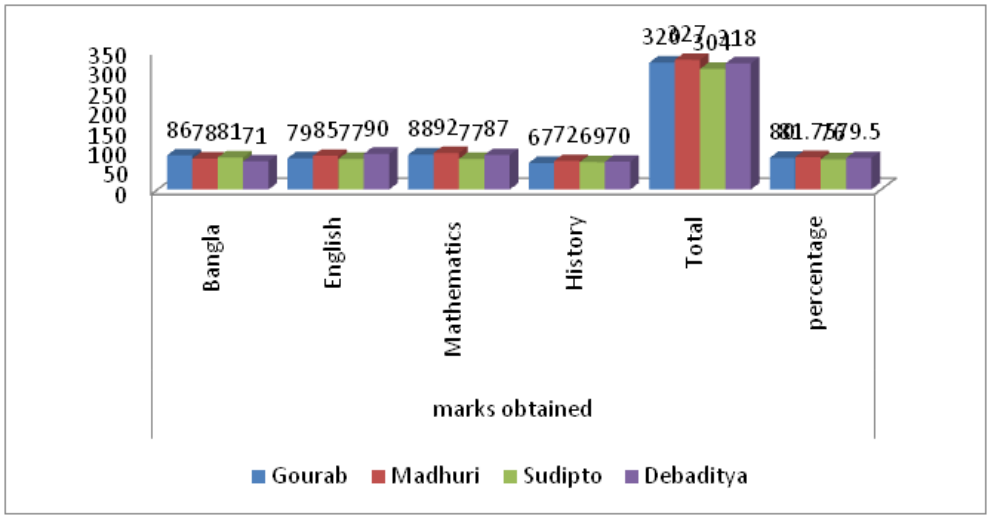
Create or insert your table as necessary. You can even bring it from a PowerPoint presentation file



You can use various "Table Data" styles to standardize the formatting within all of your tables. Move your cursor back to the beginning of the table title, and click to insert your cursor before the first word of the main title.

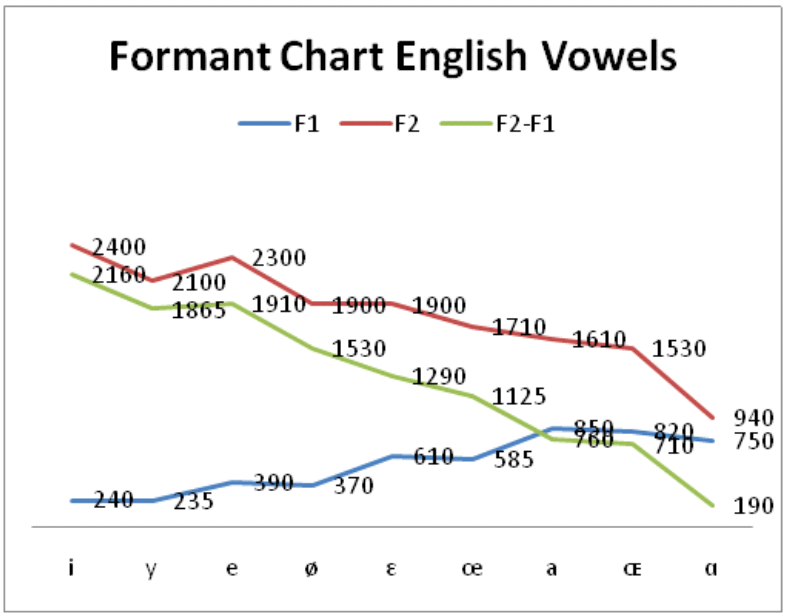
Meanwhile, you can use the References tab → Caption mechanism to insert the label and number of the table. You need to set up the initial numbering options to refer to Heading 1 to indicate chapter level, and to use a period separator instead of a hyphen. Once you insert the table label and number, Word will again apply its default "Caption" style to the entire title.

You can leave your cursor between the table number and main title, then press SHIFT + ENTER to wrap the main title to a new line. With your cursor still in the title, apply the style "Table Title" to the paragraph.



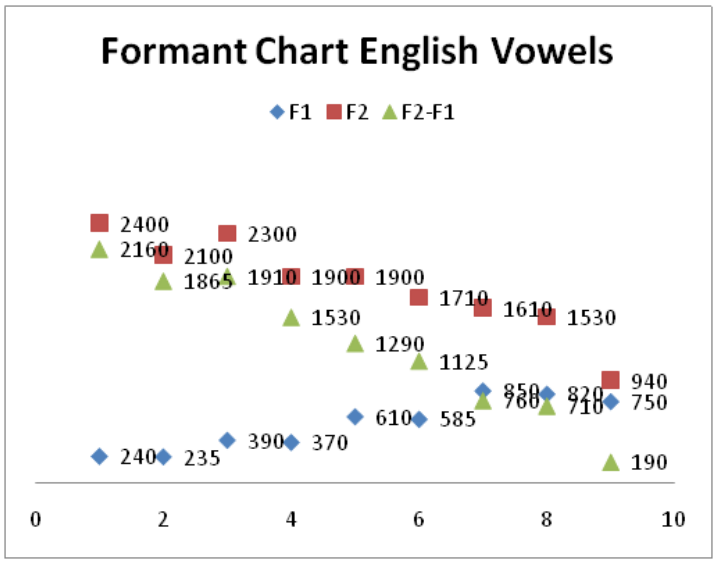
Once you copy a chart (this is column type) from an excel sheet like the one above, you can start interpreting the data. For example, in this case we have compared the marks obtained by four students of standard X Gourab, Madhuri, Sudipto and Debaditya. We have shown a comparative percentage projection and it shows Madhuri has scored highest. In Bangla, however, Gourab has got the highest marks and Debaditya fetched the highest in English. The advantage is since this chart is linked to an excel sheet, if there is an error in the data we can simply make the correction on the excel sheet and it will reflect in this corresponding word file also.

Apart from column type, we can use line type for doing a comparative study of English Vowels such as below



This chart represents three values for selected English vowels. For example, the unrounded front vowel /i/ shows an F1 value of 240 Hz and F2 value of 2400 Hz and the difference between F1 and F2 as 2160 Hz.

The same analysis can be shown by using an X-Y axis scattered chart as under:



Depending upon your need and optimum visibility you can select your chart type.

Interim questions

Prepare an excel sheet with different variables such as currency, obtained marks, population data

a. Create a pie chart

b. Create a bar diagram

14.7 Maps

Here we will talk about incorporating Google maps into a document. The following steps can be followed to embed the map of a particular place in a word.

Step 1

You need to zoom into the area on the map that you want to select using the standard navigational tools of Google Maps.

Step 2

Remove the tool panel at the left of the screen by clicking the arrow in the upper-right corner of the panel. This will give you a larger view of the map.

Step 3

Press the "Print Screen" button on your keyboard to paste the browser window onto your OS clipboard. Sometimes the button is marked "PrntScrn."

Step 4

Right-click in the Word document and select "Paste" to insert the map into the document. (You can also use the "paste" keyboard shortcut, Control plus V.

Step 5

Click and drag on the corners of the newly transferred map to resize it as necessary. If you wish to crop the map to remove any edges, you can simply right-click the picture, select "Show picture toolbar," and select the crop tool from the toolbar.

Figure 11 Cropped map

14.7.1 Cross-reference

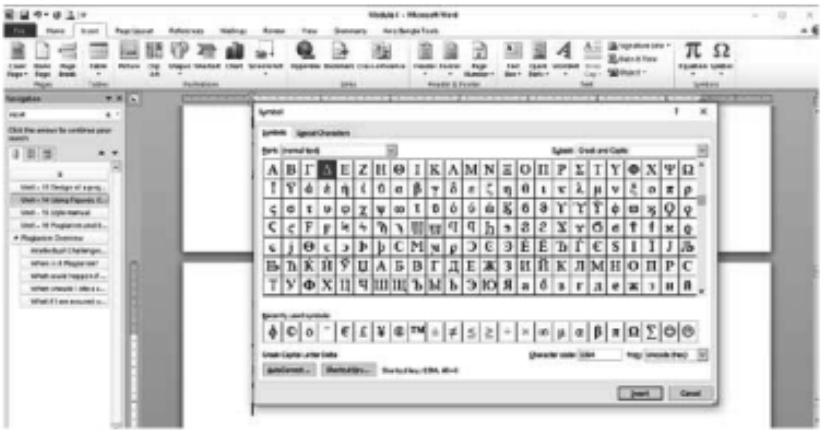
Often we need to refer back to something which has been already discussed. Apart from that we also need to refer forward to an upcoming section that would help the readers to understand a concept better. Word assists us in cross-referencing. Remember we have now learnt how to create headings at the onset. We can now use those headings for this purpose. To cross-reference we need to navigate to References' cross-reference.

Place the cursor in between the position where you would like to exercise this option. For example, we would like to cross-refer to the Unit - 15 Style manual for discussion here.

If you hover your mouse on 'Unit -15 Style Manual' it will show 'ctrl+click' to go that portion in the document. This way the document will be redirected to the desired section.

14.7.2 Symbol

Likewise, often we need special symbols such as Greek letters and Indic scripts for certain reports. We can insert a range of symbols by navigating to insert → symbol button



Many students will need International Phonetic Alphabet and those special symbols can also be found under symbols.

14.7.3 Smart Art

Sometimes, we need to create a hierarchy or show a process in the report. For this, you can create those from the SmartArt button by navigating to the insert tab.

You can create a list, process, hierarchy, cycle, relationships etc. from this.

Task 2

From your excel sheet in Task 1, Incorporate the pie chart and diagram in a word file.

Task 3

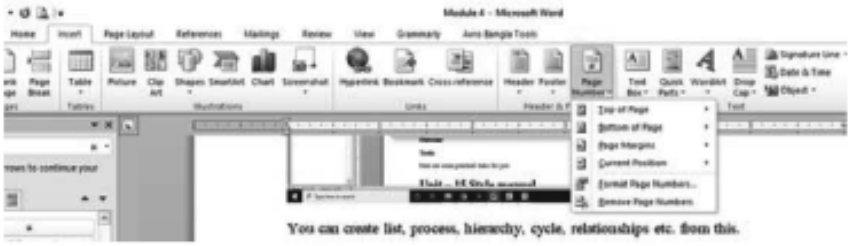
Make some changes in your data in the excel sheet and see if the same changes occur in the word file.

Task 4

Make some changes in your data in the excel sheet and see if the same changes occur in the word file.

14.8 Header and Footer and Page number

Many of the stylesheets would tell you to create a running head, for this you can simply go to insert header option and write the desired information. Usually, we use the footer section for page numbers. For this you need to go to insert- page number- choose the desired option.



It is recommended that for numbering pages, figures, tables follow a single numbering convention consistently. For example, you can decide to use Arabic numerals (1,2,3..) for page numbering and roman numbers (i, ii,iii) for a list of figures and so forth.

14.9 Summary

Often in a report, we need to put figures, images and tables. In this unit, processes of incorporating those have been discussed thoroughly. However, the focus has also been given to how to automate the process of writing to accomplish a time-bound project.

14.10 Review Questions

1. Write down the challenges you faced while inserting any of the multimedia components mentioned in the unit?
2. How did you resolve it?

Some practical tasks

3. Enter text in the document.
4. Format the text in the document.
5. Insert the pictures in the document.
6. Format the pictures in the document
7. Enhance the page with a border and additional spacing.

A little more advanced

8. Insert the first digital picture into a document and then reduce its size.
9. Insert the second digital picture into that document and then reduce its size.
10. Change the look of the first picture and then the second picture and give borders.

14.11 Reading List

M.Library. (2021). Microsoft word for Dissertations. https://guides.lib.umich.edu/c.php?g=283073&p=1886010

Microsoft. (2021). Insert a table of figures. Retrieved from https://support.microsoft.com/en-us/office/insert-a-table-of-figures-c5ea59c5-487c-4fb2-bd48-e34dd57f0ec1

Sweet, S. (2017). Working with Figures and Tables. Retrieved from https://graduateschool.nd.edu/assets/283522/wfrw_ii_figures_and_tables.pdf.

Unit–15 : Style Manual

Structure

15.1 Objectives

After going through the unit you will be able to :

- Learn on three important stylesheets e.g. APA, Chicago manual and MLA
- Know how these style sheets can be incorporated into documents.
- Work with the stylesheets popularly used in ELT

15.2 Introduction

In this unit, we will discuss how to adhere to a style sheet while writing. It is recommended that we follow one stylesheet consistently in a particular report. At times, the institution of the journal asks us to maintain a particular style manual in which we are bound to follow it. If no specification is given, you can choose as per your convenience.

15.3 What is a Style Manual

A manual of style refers to a set of standards for writing and formatting unpublished

documents. It is often regarded as a style sheet. The standards can be followed either for general use, publication houses can specifically ask for a particular styles sheet to be adopted while writing an article.

A style guide facilitates standard style to improve communication by ensuring consistency both within a document and across multiple documents. Because practices can vary, a style guide sets out standards to be used in areas such as punctuation, capitalization, citing sources, formatting of numbers and dates, tables and maps. For academic and technical documents, a guide may also enforce the best practice in ethics (such as authorship, research ethics, and disclosure), pedagogy (such as exposition and clarity), and compliance (technical and regulatory).

Style guides are specialized in a variety of ways, from the general use of a broad public audience to a wide variety of specialized uses, such as for students and scholars of various academic disciplines, medicine, journalism, the law, government, business in general, and specific industries.

The term house style refers to the individual style manual of a particular publisher or organization. For example, IEEE refers to a style manual suggested by the Institute of Electrical and Electronics Engineers.

15.4 Types of the Style Manual

Wewill be talking about three main style sheets followed in humanities and social sciences i.e. APA, Chicago manual and MLA style sheets.

15.4.1 APA style format

APA styles or American Psychological Association style sheet is the most widely used style guide in social sciences. The most important APA format guidelines in the 6th edition are :

I. Use 12 point Times New Roman font
II. Set 1-inch page margins
III. Apply double line spacing
IV. Insert a running head on every page
V. Indent every new paragraph ½ inch

These points are suggested to prepare the document beforehand. Now there are some guidelines regarding the body of writing. We will discuss them in the next subsequent sections.

APA format template

Instead of applying the APA guidelines to your document, you can download the APA format template for Word. From your earlier typed document, you can copy-paste it into this template.

a) Running head

(Streefkerk, 2020) suggeststhatin the header of each page you must include the paper title and page number. If your paper title is longer than 50 characters you should use a shortened version as running head. The page number should be positioned in the top right-hand corner. On the title page, the APA running head is preceded by the words "Running head:".

b) Headings

Throughout your paper, you use different heading levels. The levels range from one to five, structure the document. Major headings, or heading 1, are used for the titles of chapters such as "Methods" or "Results". Heading levels two to five are used for subheadings. Each heading level is formatted differently. These are the APA heading guidelines:

Heading level	APA format
Heading 1	Centered, Bold, Title Case Capitalization
Heading 2	Left-Aligned, Bold, Title Case Capitalization
Heading 3	Indented, bold, Sentence case capitalization, a final period. The body text begins immediately after the period.

Title case capitalization : Capitalize the first, last, and principal words.

Sentence case capitalization : Capitalize only the first word and any proper nouns.

c) Title page

The APA title page, also called the cover page, is technically the first page of your paper. The regular formatting guidelines regarding font and margins apply. In addition, an APA formatted title page contains:

Running head including page number
Full paper title (in title case)
Author name(s), without titles and degrees
Institutional affiliation

d) Abstract

In APA style writing an abstract would contain one paragraph (± 250 words) summary of your paper. It introduces the objective or problem statement of the paper and includes information on the method, research results, and conclusions of your research. More on this has been discussed in Unit 13.

Although most regular APA formatting guidelines apply, the abstract page also has specific requirements. The abstract starts with a centred heading "Abstract". In contrast to regular APA headings, no styling is applied. Do not indent the first line of the paragraph, unlike regular paragraphs.

At the end of the abstract, severalkeywords(3-6) relevantto the research are included. These keywords improve the retrieval of your paper in databases. Indent the line with keywords and start with the italicized word 'Keyword:' followed by the keywords.

In the next section, we will discuss the Chicago Manual, another widely used stylesheet in social sciences and humanities.

15.4.2 Chicago Manual

In Chicago styling, (Miami University , 2021), quotations that extend 5 or more lines should be formatted as block quotations. This means the quotation will have no quotation marks, be single-spaced, and be completely indented half an inch from the rest of the paragraph. For example:

Many scholars continue to prefer humans over computers:

The human brain, with its flexibility and capacity to imagine, is still superior in many ways to the electronic model.

a) Section Headings

The format for each heading level in Chicago can be seen below. All headings should be in the same font size and type.

Level 1 Heading: Centered, Bold or Italicized, and Fully Capitalized
Level 2 Heading: Centered, Fully Capitalized, with No Bold/Italic
The paragraph text for a Level 2 section will begin on the next line.
Level 3 Heading: Left-Aligned, Bold or Italic, and Fully Capitalized
The paragraph text for a Level 3 section will begin on the next line.
Level 4 heading: Left-aligned and lowercased, with no bold/italic
The paragraph text for a Level 4 section will begin on the next line.
Level 5 heading: Left-aligned, lowercased, bold or italic, and followed by a period.
The paragraph text for a Level 5 section will begin on the next line.

b) Bibliography

The Bibliography lists the full citation of each source used in your paper and can also include additional readings that you found helpful. Follow these general notes on Chicago format: You need to begin your Bibliography on a new page. A heading "Bibliography" should be written at the top of the page and centre it, with no bold or italics.

Create a hanging indent for all citations, so every line after the first will be indented half an inch. Follow these steps in Microsoft Word:

Step 1

First, highlight all of the citations on your Bibliography.

Step 2

Right-click and select "Paragraph."

Step 3

Under "Indentation," go to "Special" and select "Hanging" from the drop-down menu.

Step 4

Alphabetize sources by the author's last name. If there is no author, alphabetize by the first major word in the title.

Begin the citation with the author(s). Write the first author's name in inverted order (Last Name, First Name), but write every following author's name in normal order (First Name Last Name).

If a citation contains four to seven authors, include all names in the Bibliography. For eight or more authors, list the first 7 names and then "et al." Consider the following as an example

—(Allison, Lorraine, Molly Brown, Noelle Rothes, Gladys Cherry, Jacob Astor, Emily Page, Lucille Gordon, et al.)

Italicize books and journals, and place quotation marks around article and webpage titles. Fully capitalize all titles (except for articles and prepositions).

When asked to provide a month of publication, abbreviate the month according to the following standards:Jan., Feb., Mar., Apr., May., Jun., Jul., Aug., Sept., Oct., Nov., Dec.

You can follow the implementation in the section where we will show a step by step guide to incorporate a style sheet in your report.

15.4.3 MLA Style

General notes on MLA style

The MLA citation style is also widely accepted in humanities (English, Philosophy, Music etc.). While the 8th edition provides detailed guidelines on how to create in-text and reference citations, it does not include instructions on how to format your research paper. For proper MLA paper formatting guidelines, youmustrefer to the 7th edition of the MLA handbook & the MLA Style Centre website. See https:// style.mla.org/ for details.

MLA requires that the entire paper be double-spaced, including all the lines in the list of works cited (Dymarz, 2021).All pages of the paper, including the list of works cited, need to be numbered consecutively and must appear in the top right-hand corner of the page after your last name.

You need to cite and document any sources that you have consulted, even if you presented the ideas from these sources in your own words. You need to cite the following things to avoid plagiarism.

- to identify other people's ideas and information used within your essay
- to inform the reader of your paper where they should look if they want to find the same sources

A citation must appear in two places in your paper: firstly it should be in the body of your paper ("in-text citations") and also at the end of your paper in the list of works cited.

To introduce other people's ideas in your paper, you can use the following examples :

Richardson argues, refers to, explains, hypothesizes, compares, concludes and also this kind of expression such as As Littlewood and Sherwin demonstrated, proved, etc.

i) Spelling

Use a Standard English language dictionary, such as Merriam-Webster's Collegiate Dictionary [print] or Canadian Oxford Dictionary [print]. Word has an inbuilt spell checker that helps us with spelling consistency. These days many students are using the free version of Grammarly to correct the grammar and spelling in their documents. Refer to https://www.grammarly.com/.

ii) Approach to citation

In today's world, a single document or publication is often produced and accessed in various formats and mediums (for example, a film may be watched on Netflix, DVD, or digital download, or through a public viewing). Sometimes the medium of

publication cannot be defined in simple terms. The 8th edition of the MLA style guide reflects this wide range of publication formats; rather than providing strict instructions on how to format a citation for specific types of sources, the guide now focuses on the process of scholarly documentation. Therefore, the MLA Handbook does not list specific rules on how to cite a DVD, a book, a journal article, etc., but instead outlines a universal set of general guidelines of citation and documentation that can be applied to any source type.

These guidelines provide a basic model for citations: writers create citations, not by looking for specific formulas for individual source types, but rather consulting MLA's list of core elements, and assembling them in the standard order.

iii) Core elements

The 8th edition of the MLA style guide identified "core elements" as basic pieces of information that should be common to all source types (DVDs, print or digital books, journal articles, comments on blogs, etc.) (pp. 20-54). The MLA core elements are as follows:

Author
Title of source
Title of container
Other contributors
Version
Number
Publisher
Publication date
Location

If a particular core element does not seem relevant to a particular source type, it can be omitted from the citation. For example, a YouTube video may not be associated with a particular version, and the works cited citation will therefore not include a version number.

Once you understand the basic principles of citation, you can apply them to any source type, without concern to the actual format or medium of publication. The MLA guidelines reflect this approach.

Many electronic sources do not provide page numbers. Sometimes the source will have paragraph numbers that you can use for your parenthetical citation. Use the abbreviation "par." for a single paragraph or "pars." for multiple paragraphs. You don't have to count paragraphs yourself if they are not indicated on the document. In case there are no page or paragraph numbers, the MLA guide recommends that you incorporate the name of the author in the text of your paper: for example-

1) Chomsky argues there is a little v on top of VP.

You may indicate in your paper an approximate location of the cited passage: In the final third of his article, Abney arguesthat there is a link between the Noun phrase and DP hypothesis. Conversely, you can also include only author information in the parenthetical citation, e.g.

2) There are two basic operations in the minimalist program, merge and move. (Chomsky)

If you cite multiple works by the same author, place a comma after the author's last name in the parenthetical (in-text) citation and add the title (in full or a shortened version if it is long) and the relevant page reference, e.g., (Foucault, History of Madness 125).

iv) Works cited

At the end of the report, you need to list all your sources on a separate page entitled Works Cited. The works cited entries are composed of the "core elements", and are given in the order in which they are presented in the list above, along with the punctuation mark. Elements may be omitted if they are deemed irrelevant or are absent. For example, if a work does not have an author, the works cited entry would begin with the title of the source.

The works cited list is arranged alphabetically by the author's last name. If there is no author, use the title of the source. The works cited list is double-spaced throughout, both between and within entries. If a citation is more than one line, the second line is indented by 1.25 cm (0.5 inches).

Use the format of the author's name as it appears on the title page of a work (e.g. "Mooney, Jayne," or "Danto, Arthur C.," or "Gibaldi, M. C.").

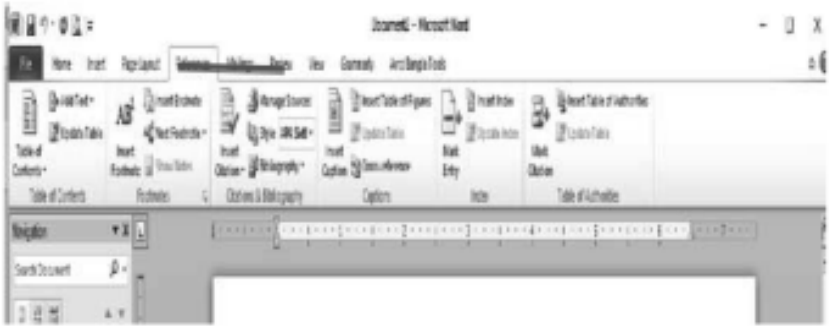
15.5 Step by step Guide

We will explain the incorporation of a style manual in a document file here. We would like to divide this into three sections 1) manage sources 2) insert a citation and finally 3) insert the bibliography or works cited.

Create Sources

Before you start writing, you must have compiled a list of readings relevant to your work. You also feel some of these readings should be cited while you explain certain ideas in your report. We recommend that you need to create these sources at the onset in your document file.

To do so, you need to first navigate to the reference tab. Under reference, you will find an option called manage sources.



Once you click on the manage sources, it will direct you into a new window called source manager

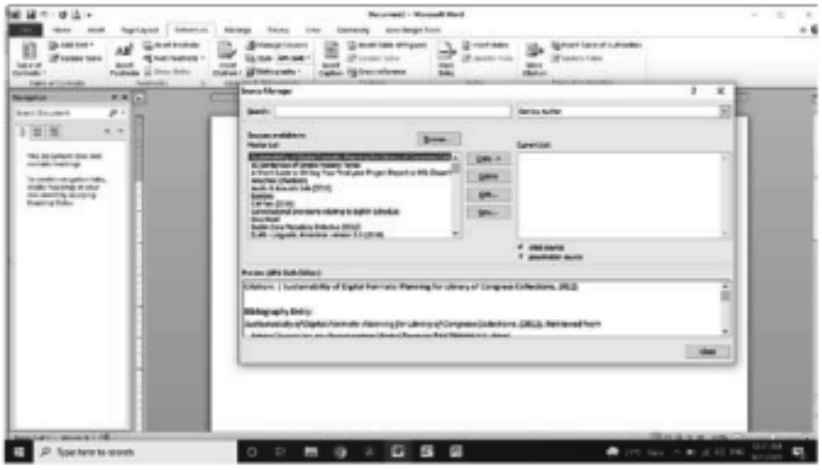


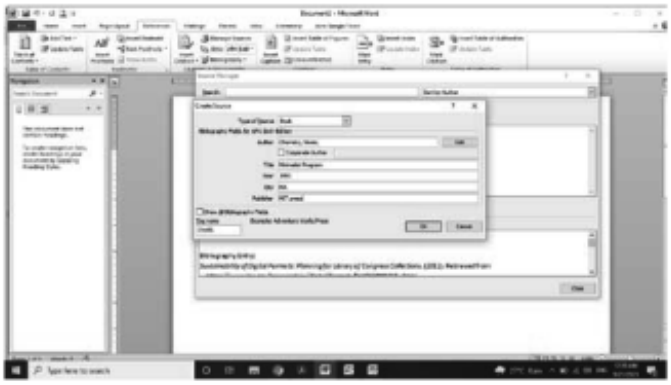
Figure 12 Source manager

If you don't have some preloaded information, then both the lists would be blank. The best practice is once you add a book or an article to your system; it remains

available in case you plan to write another article or paper in the future. When you open a new document and click on the source manager you will see those sources in the master list saved previously. Now we will tell you how to add a new book or a journal article for your report.

After you go to source manager you need to click on new and choose a type of source. From the dropdown, you can select a book. You can observe that a lot of options are available under this drop-down menu such as website, book section, report, miscellaneous etc.

Once we select the book option, there are four fields that need to be filled. First, the author name, followed by the name of the book, year of publication, city and the name of the publisher. For example, we have added a book called Minimalist Program authored by Noam Chomsky in1995 published by the MIT Press. After we enter the data the source manager looks like the following

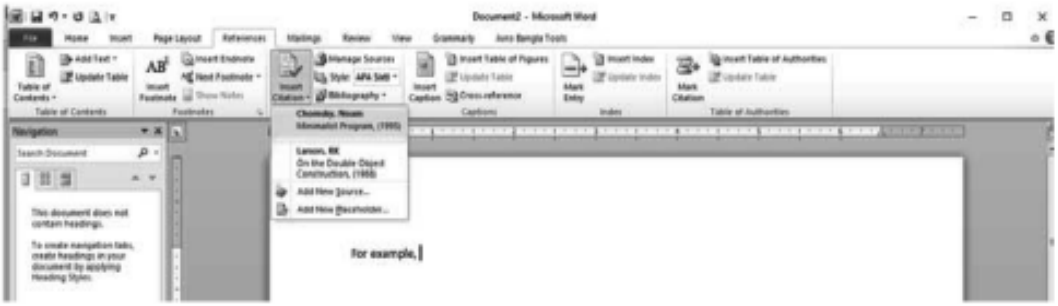


Once a source is added, it gets listed under both the current list as well as the master list. Similarly, we will now add an article authored by RK Larson on Double-object Construction published in Linguistic Inquiry in the year 1988.

At this moment, in my report, there are two sources that we have identified as relevant. Now as we proceed we may come across more readings that need to be incorporated. We can do that any time during writing by following the same steps as mentioned above.

Insert a citation

Once the sources are listed in our current list, we can call them in our text anytime. While we started writing we felt that we need to bring the ideas put forward by Chomsky in my discussion. We can go to references and now we will find an option called insert citation



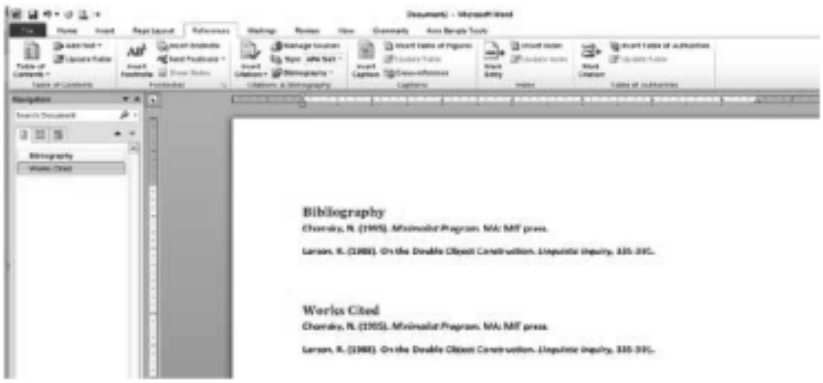
We can now choose Chomsky and complete the sentence.

—For example, (Chomsky, 1995) shows the basics of Minimalist assumptions after the bare Phrase structure in this book. Similarly,we can cite Larson's article as and when required.

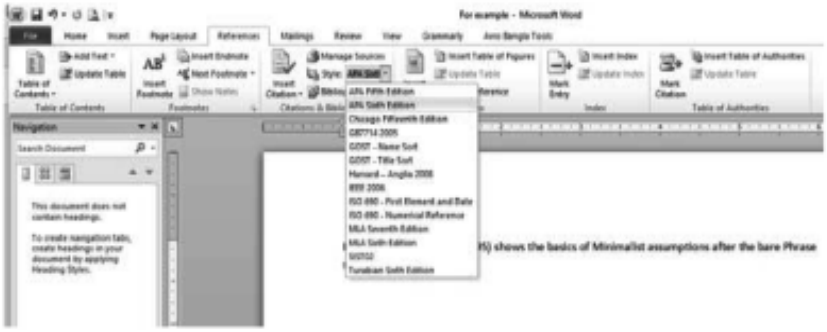
Insert the bibliography or works cited

After my writing is completed, we can simply go to references once again. Now we can easily navigate another option called bibliography which is right under the tab called 'style'.

Now we can either choose bibliography or works cited. It will give us an auto formatted list like the following



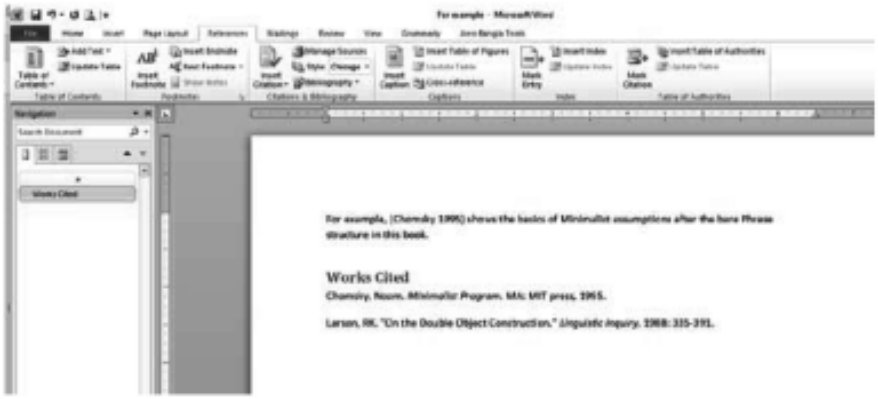
Now let me talk about an important note here. You can create your source manager in any style sheet. In MS-word 2010 version, the default style sheet is APA sixth edition. You can change the style sheet from this drop-down menu shown here-



Even if you have created your source in APA style format, if you change it to Chicago, your citation and bibliography pattern will automatically be updated.

For example, if you select the Chicago fifteenth edition, the citation will look like this.

The works cited will change too.



In this way, you can follow a particular style sheet and format your citation and bibliography automatically. If you add a source after the bibliography is added to your report, you can right-click on the bibliography and update it. Sometimes, you will notice there is a spelling error or extra punctuation, you can also modify them and update the works cited accordingly.

Tasks :

1) Prepare a word document following the APA style sheet
2) Use citations and bibliography
3) Change the styles sheet of the document to MLA and Chicago manual and take screenshots to see the differences.

15.6 Summary

It is crucial to learn about stylesheets before preparing a project report. In this unit, three important stylesheets e.g. APA, Chicago manual and MLA have been discussed. It is also demonstrated that how these style sheets can be incorporated into your documents. Sometime, the institution asks you to follow a particular stylesheet. In that case you have to adhere to those guidelines. In Microsoft word we can preset a stylesheet. Once we start writing, the paragraphs and citations automatically falls into place.

15.7 Review Questions

1) Go to the respective websites of APA, Chicago Manual and MLA stylesheets and make a comparative summary.

2) What differences do you note in the bibliography?
3) Do you observe any difference in the citation pattern between APA and Chicago Manual?
4) State true or false
   a. In APA style, a separate title page is required for a document.
   b. Each source listed in the Reference list must be cited in text.
5) What would an in-text citation include when the author of a source is unknown?
6) When should "et al." be used as per Chicago Manual?
7) In APA style, how would we place a long quotation more than 40 words?
8) What is source manager ?
9) How do we make changes in the current list? For example if we note a spelling error in the bibliography.
10) What are the core elements in MLA style sheet?

15.8 Reading List

1. Dymarz, A. (2021). General notes: MLA (8th ed.) Citation Guide. Retrieved from https://www.lib.sfu.ca/help/cite-write/citation-style-guides/mla.
2. Flann, Elizabeth, Beryl Hill, and Lan Wang. 2014. *The Australian Editing Handbook*, 3rd ed. Milton, QLD: John Wiley & Sons.
3. Miami University. (2021). Chicago Style (16th Edition). Retrieved from https://www.miamioh.edu/hcwe/handouts/chicago-style-16th/index.html.
4. Streefkerk, R. (2020). APA format for academic papers (6th edition). Retrieved from https://www.scribbr.com/apa-style/6th-edition/archived-format/.
5. *Style Manual for Authors, Editors and Printers*. 2002. 6th ed. Revised by Snooks & Co. Brisbane: John Wiley & Sons.

Unit–16 : Plagiarism and its Consequences

Structure

16.1 Objectives

After going through the unit you will be able to :

- Know about the consequences of plagiarism
- Learn how to check plagiarism through open-source software before submitting the report.
- Understand the ethical issues of plagiarism.
- Learn the difference between intentional vs. unintentional plagiarism.

16.2 Introduction

(Purdue University, 2021) notes that Plagiarism occurs when someone uses someone else's ideas or words without giving them proper credit. We need to understand that Plagiarism can range from unintentional to intentional. For examples, we can forget to include a source in the bibliography or buy a paper online, using another writer's ideas as our own. Amateur writers and expert writers alike can all commit plagiarism. Please understandthat plagiarism is a serious offense in academia, and also in

professional settings. If you plagiarize as a student, the consequences can include failing grades on assignments or classes, academic probation, and even expulsion. As a researcher, if you plagiarize, it can cause a loss of credibility, legal consequences, and other professional consequences. As an employee, you can get demoted or land up losing your job.

We must always consider the importance of recognizing the standards and conventions for citing sourcesand remember that they vary from the classroom to scholarly publishing to the professional sphere, sometimes very widely. In every possible situation, we must attribute other people's words and ideas to their appropriate source.

16.3 When is it considered Plagiarism?

There are instances when we can plagiarise intentionally. This includes buying, stealing, or borrowing paper from someone else. For example: copying a blog post or stealing an article online. It will be considered an act of plagiarism if you hire someone to write your paper for you. Copying a large section of text from a source without making it clear that it comes from somewhere else through quotation marks or proper citation will also be considered an act of plagiarism.

If we intentionally fail to cite someone else's work, to and claim that the ideas and words belong to us, we will also fall into this domain. There is also a possibility that we land up copying from one of our earlier papers. In academia, if we repurpose a paper from a previous class or write one paper for two classes without the instructor's permission this is plagiarism.

Now let us talk about unintentional plagiarism. This usually happens for a few common reasons: one doesn't fully understand the citation system they are using. She/ he ends up missing key elements of the source attribution.

You think they are paraphrasing (restating a source's point in their own words) and lands up accidentally directly quoting words or phrases without realizing. This will be considered as an improper citation (paraphrasing vs. quoting).

It can also include misattributing a quote or idea to the wrong source. It might happen to the research projects where the writer is dealing with a lot of source material.

16.4 What happens if you Plagiarize?

If your teacher finds out that you have unintentionally plagiarized then she/he would meet you. The teacher, who has checked your draft, will explain how to avoid it in the future. Many teachers understand that citation practices are complex and can be difficult for beginners to learn. They treat single instance of accidental plagiarism as a learning opportunity.

The corporate world and universities in particular have very strict guidelines for those accused of plagiarism. It is important to familiarize yourself with your university policy, because the consequences can be serious, which would include:

- Automatic failure of the paper
- Automatic failure of the class
- A report to the Authority

Some of you would consider these consequences as harsh or extreme, but they are meant to stop you from plagiarizing. This is malpractice and it is also an ethical dilemma. You are pursuing a course at the university to learn and produce original work.

One of the reasons for plagiarism is the lack of time to work on a research project. In such cases, you mustalways maintain good correspondence with your professor before you turn to plagiarism. Professors are there and want to help students, but they cannot help you if they do not know you need it. Always give credit where it should be given. If the words that you are including in your research belong to someone else, give credit. Learn to acknowledge.

16.5 Brief list of Source Citation

We would like to provide some examples of sources that you need to cite in your paper. Firstly, Words or ideas presented in a magazine, book, newspaper, song, TV program, movie, website, computer program, letter, advertisement, or any other medium should be noted. Then information you gain through interviewing or conversing with another person, face to face, over the phone, or in writing should be acknowledged. Obviously, you want to cite when you copy the exact words or a unique phrase. Citation is also required when you reprint any diagrams, illustrations, charts, pictures, or other visual materials. A good practice of avoiding plagiarism is when you reuse or repost any digital media, including images, audio, video, or other media with proper citation.

16.5.1 Conclusion

Of course, there are a number of things that do not require documentation or crediting. For example in the case of you writing your own lived experiences, your observations and insights, your thoughts, and your conclusions about a subject. You are writing up your own results obtained through lab or field experiments and using your artwork, digital photographs, video, audio, etc.

When you are using common sense observations, myths, urban legends, and historical events you do not have to document those. Plagiarism also would not count in cases when you are using generally accepted facts (e.g., pollution is bad for the environment) and facts that are accepted within particular discourse communities (e.g., in the field of composition studies, "writing is a process" is a generally accepted fact).

Your teacher will also guide you for revision in case it is required.

16.5.2 False allegations

It might so happen that you have not copied from any source but one of your classmates has accused you of plagiarism. You could become a victim of theft yourself. This can happen in many different ways (a roommate copying your files, using a computer from a lab that still has someone else's login, etc.).(Purdue University, 2021) proposes some simple and easy tips to keep your intellectual property safe:

Try not to save your paper in the same file over and over again. Use a numbering system and the Save As function. For example, you can save different versions of your report as research_report001.docx, research_report002.docx, research_report003.docx as your workprogresses.

Do the same thing for any online files you are working with. Having multiple draft versions may help prove that the work is yours (assuming you are being ethical in how you cite ideas in your work). It is recommended that you maintain copies of your draft in numerous media, and different secure locations when possible. Do not rely only on your hard drive, it can crash and alsosimilarly do not rely only on a USB drive, you can lose it.

Many students typically use one or more of the methods above to secure their files, including emailing themselves or emailing a friend, with prior permission. It is a good practice to secure your computer with a password. If you work in the computer lab make sure to log out or lock the computer before you leave. If you feel insecure then you can protect your files and folders with a Password. Just don't forget the password. Some people use dropbox or google drive for their works.

16.5.3 Self-check

Now once you are ready to submit your assignment, make sure that you already have checked your document for plagiarism. There are lots of free tools for plagiarism check,we recommend smallseotools because this is an open-source browser-based platform and targeted to students. There are two ways you can check plagiarism in this browser. seehttps://smallseotools.com/plagiarism-checker/

1) You can simply upload your report on the website and type the name of your report in the title section.

2) You can copy-paste section by section and check the amount of plagiarism. This is indeed necessary when your file contains more than 10000 words.

Once the data is checked it will show you the results

If your rate of plagiarism is too high, say more than 10%, you can revise your paper and cross-check. This will not only make you feel satisfied but your supervisor will also be super impressed. This will certainly fetch you higher grades.

16.6 Summary

This unit helps us understand the ethical issues of plagiarism. First of all, we need to realize that plagiarism is a serious issue in academia. We can get a range of punishment for copying and pasting other works depending on the severity. We learnt the difference between intentional vs. unintentional plagiarism. Another key issue discussed here is the case where we are falsely accused of plagiarism. It is a good practice to save our files in multiple versions and create backups. We can also send it to our friends with their permission. Before the final submission, we can take the help of some online open-source browser for a free check of plagiarism. Otherwise our teacher will check the document and ask to revise the draft.

16.7 Review Questions

1. Exercise

   Read over each of the following passages, and respond on your own or as a class as to whether or not each passage uses citations accurately. If it doesn't, what would you do to improve the passage so it's properly cited?

   a) Last summer, my family and I travelled to Chicago, which was quite different from the rural area I grew up in. We saw the dinosaur Sue at the Field Museum and ate pizza at Gino's East.

   b) I find it ridiculous that 57% of high school students think their teachers assign too much homework.

   c) Several studies have shown that medical professionals have difficulties with writing experimental research reports. A preliminary analysis was carried out on an initial corpus of thirty textsselected from five refereed medical journals--The Lancet, the British Medical Journal (BMJ), The New England Journal of Medicine (NEJM), The Journal of Clinical Investigation (JCL Inv) and The Journal of the AmericanMedical Association (JAMA).

2. Take a couple of articles and summarize them in terms of your language. Wherever you need to document, do it carefully.
3. Are these instances of plagiarism?
   a) Scenario : We used a theory given in the textbook in my homework solution. This is NOT plagiarism because you can freely use ideas/ results in instruction material without restriction.
   b) Scenario : We used a theorem which we found on a website in my proof, which we did not cite.
   c) Scenario : We used a theorem which we found on a website in my proof, and we also cited the website.
   d) Scenario : The question in the homework is similar a solved question given in the book. So we copied (verbatim) most of its solution from the book.
4. Why is it insufficient to cite sources for your work through a bibliography alone?
5. How to cite 'quotes' in a document?
6. What is self-check?

16.8 References and Reading List

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4. Smith, W.S. (2008). *Plagiarism, the Internet and Student Learning*. Routledge.